PHOTO-ERA MAGAZINE

The American Journal of Photography

Copyright, 1925, by PHOTO-ERA MAGAZINE

Vol. LIV **MAY, 1925** **No. 5**

The Quest of Beauty

ALLEN H. BENT

JUST as the world is made up of darkness and light, of joy and sorrow, of good and evil, so is it divided into beauty and ugliness. There are many forms of beauty, and if anyone thinks that its appreciation is confined to America and Europe, or that it is of recent discovery, let him read what was written by one of the Chinese poets, Hsu Kung Tu, who lived more than a thousand years ago:

> A mist-cloud hanging at the river's brim,
> A hut rose-girdled under moon-swept skies;
> A painted bridge half-seen in shadows dim,—
> These are the splendors of the poor.

Mrs. Anne Bosworth Greene in her delightful book, The Lone Winter, says "We are too lazy, or too busy, or too unrealizing to get at beauty; we have to be shoved out into it, and if it is your vocation that does the shoving, thank it with all your soul."

The quest of beauty is the mission of the photographer, whether his wanderings are near at home or far afield. The camera is now an important part of the equipment of the traveler, great or small, and his explorations are no longer confined to the earth, for there is beauty above the clouds, and at the bottom of the sea. To find beauty, to preserve it, to pass it on, and more important still, to encourage others to see it at first hand, these things are, or ought to be, ever present in the mind of every one with a camera. Beauties have been spread before us with a lavish hand, they can hardly be seen by people who cultivate the mile-a-minute habit.

Those who live within sight of the mountains, desert, or sea ought to consider themselves especially favored. If it is possible to camp out in some of these surroundings, so much the better. He who has slept under the stars at considerable heights will realise the beauty of night. Sir Francis Younghusband says in "The Heart of Nature", that on his long journey across the Gobi Desert—twelve hundred miles with no European companion—in the great stillness, night after night, he came to feel that he was "more connected with the starry firmament than with this Earth" . . . "In that unbroken quiet and amid this bright company of heaven my spirit seemed to become intenser and more daring." Fortunate man! No wonder he could say, "The frets and pains of ordinary life are stilled. Deep peace and satisfaction fill the soul."

His address upon "Natural Beauty and Geographical Science," read before the Royal Geographical Society in May, 1920, and included in the volume just quoted from, ought to be read by every student of geography, young or old, and by every dweller in our big cities. Landscape-photographers and other explorers of the great out-of-doors know something about this, though none have written, or could write, with the exaltation of the distinguished explorer of Tibet, Kashmir and the Himalayas.

"Beauty", he says, "is a quality which appeals to all men for all time, and appeals to them in an increasing degree. It is something which all men can admire and enjoy. . . . Also the more Natural Beauty they see, the more, apparently, there is to see. Poets in their poems, and painters in their pictures, are continually pointing out to us less keen-sighted individuals new beauties in the features of the Earth. The mineral wealth of the Earth has its limits; even the productivity, though perennially renewed, is not unbounded. But the Natural Beauty is inexhaustible; it positively increases and multiplies the more we see of it and the more of us see it. So it has good claim to be considered the most valuable characteristic of the Earth."

It is not necessary to go to the Himalayas or the great deserts to find Natural Beauty, much

XUM

as we would like to. Whittier reminds us that

"The Beauty which old Greece or Rome
Sung, painted, wrought, lies close at home,
We need but eye and ear
In all our daily walks to trace
The outlines of incarnate grace,
The hymns of gods to hear."

Hill and valley, lake and river, cliff and shore, tree and flower, cloud and sunset, some of these are surely within easy reach, waiting to be discovered.

The quest of this natural beauty, whether near or far, is one of the joys of life to the man with a camera, whether amateur or scientist; and, if he does not feel as though he wanted to become a poet and an artist as a result, it is his own fault.

The Portrait-Painter

(From the New York Times, May 18, 1924.)

ALMOST at the exact time when the State portrait of the King of England appeared on exhibition in London, members of the Canadian press were presenting to the National Press Club at Washington a likeness of President Harding. Thus the high official value attached to portraiture of the formal sort in lands with long artistic traditions finds two fresh examples. The painting of a dignitary has become in some of these countries almost a heraldic rite. But it effects what boast of heraldry and pomp of power could not. It registers the aspect of the man—not as the camera sees him, but as his fellows know him.

The great number of existing portraits of former eminent Englishmen gives King George's subjects an added reason to have their leading men of today painted, for thus alone can the gradually collected record be made complete. If a photographer, instead of Holbein, had left a curious posterity the likeness of Henry VIII., or if a fashionable camera portraitist of the era of Charles II., instead of Lely, had preserved the charms of the ladies and gallants of that day, the photograph might now have preference over the work of the brush. Things have actually happened the other way around.

In our own country the mechanical likeness has supplanted the painted rather generally. The camera was as democratic as our railway passenger-coach, and swift in its workings. It pictured rich and poor with equal fidelity, and it wasted none of their scant leisure doing it. As most of the important Americans of the nineteenth century began life in anything but affluence, and as they seldom acquired enough leisure to sit to a painter, they naturally turned to the photograph studios, with but few exceptions, even among the most eminent. This serves to account for the paucity of painted portraits of the leading men of the past two generations.

The camera fortunately found in Lincoln a good subject. Owing to this happy chance, we have several excellent likenesses of him, including the familiar full-face head that hangs on the walls of millions of homes. Lincoln's quality of "filming" well has lead to the extensive use of his figure in the motion-pictures. An impressive photograph of Grant preserves his striking expression. The camera likeness of Lee may rank with those of his two great opponents. When we come to Roosevelt, we meet with an abundance of lively photographs, many of them snapshots, for the rapid film came into use in time to catch him in full vigor. But in all this abundance of pictures of him there seems none that common consent has yet picked as "the" Roosevelt.

The photograph, in any case, does not serve the same purposes as the painting. The color of the painted portrait, its size and its vividness, adapt it to display. They render it difficult to reproduce for the sitting-room wall or for the printed page. Though such portraits are extensively reproduced in England and elsewhere, they frequently lose their character in the process. But this drawback does not diminish the value that they possess as records. The kind of truth attained in the work of a superior portraitist cannot be duplicated by mechanical means, for he selects the notable traits of his subject with an eye to presenting not alone the physical aspect, but the sum total of the striking things about the man, reckoned in their proper proportions. The best photographic portraitists themselves strive to approximate the discriminative quality of the brushman's work.

The standard Washington of Gilbert Stuart and the familiar likeness of Hamilton supply so large a place in our impressions of two of our foremost Americans that we might well wish to have portraits of all our men of note from equally competent hands. In the case of some this can now never be, but we can still take thought of the future.

[Read Mr. Eickemeyer's reply on opposite page. EDITOR.]

Photography vs. Painting

RUDOLF EICKEMEYER

AS one whose career and best years have been spent in photographic portraiture, I found a keen interest in the editorial entitled "The Portrait Painter", in *The New York Times* of May 18, 1924.

The admirers of portraits by masters in the art, will feel the more distressed when they realise that the succeeding generations will judge the present—not by painted portraits, but by photographs which those skilled in the craft have created. In other words, the painter's results will be valued more as works of art than as portraits. I venture this prediction, fully realising from long experience the limitations of the camera, its principal fault being that it sees with but one eye. As a consequence, planes are not well differentiated, the negative lacking what the French call *enveloppe*.

That the photographic portrait is not a perfect transcript of the original, and is not what our two eyes see, is true, and easily demonstrated by looking at an object with one eye and then normally; or comparing such a portrait with two, made with two lenses and viewed through a stereoscope. Here is life, to fairly thrill one. Would that such records could be made and freed of the cumbersome device necessary to view them properly.

Confessing the primal weakness of the camera, I venture to state, and without fear of contradiction, that in spite of it the lens draws with greater accuracy than is possible with the human hand. Admitting that, when used by unskilled workers, the camera plays havoc with proportions, it has won and held its place because it is the best possible medium to record the person it portrays. Examine, even casually, the portraits of women by Reynolds, Romney, Raeburn, Sir Peter Lely, Sir Godfrey Kneller, Sir Thomas Lawrence, and others of that glorious era of English portraiture. You will invariably find that the faces, while retaining certain dominant characteristics, are as though made with the assistance of a square and compass. Those who have studied the subject know how rare it is to find a human face so true in drawing, that either side may be photographed with equally satisfactory result.

The portraits mentioned are only in rare cases likenesses, which is the principal end and aim, and the basis of all great portraiture. The artists have not told the whole truth. The portraits of the men are more literal; but they lack even here the courage of Holbein, Rembrandt and Hals, whose work is as varied as human nature itself with no thought of following a formula, often dictated by fashion.

You say, "The photograph in any case does not serve the same purposes as the painting. The color of the painted portrait, its size and its vividness, adapt it to display. This renders it difficult to reproduce for the sitting-room or for the printed page".

This I feel is only true in part. Save in rare instances the color is a cloak that conceals poor drawing in the many portraits of today. Since the advent of the orthochromatic plate, which with a color-screen gives an almost perfect translation in monochrome, the portraits are not as you say, "difficult to reproduce". Such reproductions are not popular solely because the camera discloses them as poor likenesses.

Few there are who are not awakened to a form of enthusiasm by the usually brilliantly colored portrait and gorgeous gold-frame of no mean size, and misled by their ecstatic appeal. On receiving the true impression by seeing the photographic reproduction, we turn with a sense of relief to a direct camera-interpretation of the subject, which is unhampered by mannerisms, and more truthful than any hand can make it. You mention the portraits of Washington. I venture to say that impressions from the many records—all virtually alike in expression, and showing but one aspect of the man—awake a longing for a few snapshots of him under varying mental conditions.

This portrayal of but one phase compels me to disagree with you in regarding Lincoln as a good subject, for the majority of his photographs represent him as a decidedly sad person. These pictures have not only influenced biographers, but the world at large. And yet Lincoln's wealth of stories show that he possessed a keen sense of humor. In spite of well-nigh crushing burdens, it cannot be that all of his days were sad. His stories prove that they were not. Yet in the sight of the camera he discloses not the slightest trace of any phase but soberness, bordering at times on a sadness which enveloped the period of his noblest achievements.

[We are glad to give space to the opinions expressed on this and the preceding page. We were glad to publish Floyd Vail's straightforward article in the March number. It is our desire to welcome constructive comments from all authoritative sources. However we may not always agree with the contributor's viewpoint. EDITOR.]

XUM

LANDSCAPE DURING TOTALITY L. V. RICHARD

The Recent Solar Eclipse

WILLIAM S. DAVIS

AS Long Island, New York, lay directly in the path of totality of the recent eclipse of the sun, it was the chosen objective of many observers—scientific and otherwise—who gathered to witness the event. The eastern tips of the island afforded especially desirable vantage-points as the center of the path of totality covered Orient Point at the tip of the north fork and Montauk Point at the termination of the south branch, thus allowing observers at these spots the longest time to view the corona—a little more than two minutes during the period of totality. Because the writer's home-town of Orient was so favorably situated for the purpose, he determined to improve the opportunity to obtain a few photographic souvenirs—if the atmospheric conditions proved favorable—in addition to observing the event with the naked eye. As a result, the following notes and illustrations are offered, not as scientific data but simply as the experiences of an ordinary spectator.

Visual Impressions

January 24, 1925. Time: morning. Cold for Long Island, the mercury hovering around six degrees above zero, and the air clearer than is usually the case along the coast. Only a slight breeze from the west and northwest is felt after several days of high winds. The snow-covered fields glisten in the early morning sunshine and a sense of expectancy seems almost to pervade the air in anticipation of that greatest of visual astronomical phenomena—a total eclipse of the sun.

To the south, over Shelter Island, appears the silvery form of the Navy dirigible "Los Angeles" with a party of government scientists aboard. She swings away, heading southeast toward Montauk, slowly gaining in altitude meanwhile. Somewhat later the whir of airplane motors is heard overhead as other official observers take stations above the eastern part of Long Island.

The light is becoming yellow in quality, and in the southeast gray, stratiform clouds make their appearance, blotting out the sun and causing much concern to watchers below. Through the spaces between the clouds the sun peeps out now and then, as the scheduled time for the performance to commence (8.01 A.M., eastern time) approaches. At last, as a glimpse is caught of the sun, a well-defined nick is visible in the upper right-hand edge of the sun's disk where the moon has begun to cross its face. The

performance has begun! Slowly the dark circle of the moon's orb creeps past, hiding more and more the glowing face of the sun; and, as the luminous power of the sun's rays wane, the atmosphere takes on a peculiar tint that baffles accurate description. It might be called amber-like in hue; yet, it is different from the warm glow so commonly seen in hazy weather in the early morning or late afternoon. Fortunately, the clouds have now disappeared, leaving the air crystal-clear in appearance, and through a smoked-glass one perceives that our friend the sun is reduced to the form of a new-moon.

FIGURE 1 WILLIAM S. DAVIS

At this time—some fifteen minutes before the commencement of totality—characteristic crescent-shaped cast-shadows are noticed upon the sides of nearby buildings, the patterns thus cast by the intervention of bare tree-branches being somewhat suggestive of the frost-work upon a window-pane.

About a minute before the last rays from the sun are cut off, vague shadows start flitting over the surface of the snow in long, wavering lines—the "shadow-bands" about which so much has been said and written. These lines of gray shadows pass swiftly, rank upon rank, the parallel rows perhaps eighteen inches apart, moving from the southwest toward the northeast. In the subdued light a few birds wing their way through the hushed air, apparently under the impression that they are seeking shelter for the night. The weird twilight takes on a greenish-blue hue, ranging from a subdued glow near the horizon to a darker tone above, the whole being rather suggestive of moonlight, but less deep; the general illumination being sufficient to permit one seeing considerable detail in distant objects.

The dramatic moment for which thousands have been waiting is at hand, the last minute rays of sunlight are blotted out in a swift rush and literally in a flash the *corona* in all its glory bursts upon the eye, a vision of flaming beauty as the streamers of violet-white light that constitute the outer corona spread in waving clouds beyond the dazzling intensity of the flaming band encircling the dark outline of the moon, which astronomers call the *inner corona*. Points of light of greater intensity flash and sparkle against the general glowing mass, the only familiar kind of light to which that of the corona might be compared in apparent intensity and color being a powerful electric arc viewed at close range. At intervals, the prevailing silvery light of the corona is emphasised by the appearance of glowing orange-spots as masses of flaming hydrogen-gas shoot out thousands of miles into space from behind the darkened disk of the moon.

A few degrees to the right of the hidden sun Venus, Mercury and Jupiter—the three forming the points of an imaginary triangle—glow brilliantly in the darkened sky; but beautiful as these are to the eye one can spare them only a

XUM

hasty glance, for the seconds are swiftly passing during which the marvelous corona reigns supreme. As we watch it, trying not to miss anything, there occurs with startling suddenness a blinding flash of light from the upper right-hand side of the sun's hidden disk, so like a gigantic explosion that one involuntarily expects a report to follow. Light returns to the earth far more swiftly than it waned; and, for a few seconds, the "shadow-bands" again flit past until obliterated by the rapidly increasing strength of the sunshine which floods the snowy fields. The climax is over—its splendor a memory.

For approximately an hour and a quarter longer the moon continues its transit between the sun and the earth; but during this phase of the eclipse, nothing of especial interest is to be seen by visual observation. Finally, the sun emerges as an unbroken circle, the event is ended, and the watchers turn once more to everyday affairs.

Some Photographic Records

The photographic part of my story now begins. The outfit chosen to photograph the eclipse consisted of an old 4 x 5 long-focus stand-camera, mounted upon a good solid tripod. Wishing to obtain as large an image as the resources of my equipment would permit, I employed the 17-inch front combination of a good three-foci convertible rectilinear—in other words a long-focus single achromatic lens, which possessed the advantage of having no air-spaces between its components, which in lenses of more complicated form are frequently a source of trouble when photographing highly luminous bodies. During some of the exposures I capped the lens with an Ingento series A ray-filter. The plateholders were filled with fast double-coated orthochromatic plates—the Standard Orthonon. A 3¼ x 4¼ plate-camera fitted with a 6-inch F/6.3 anastigmat was placed near the larger outfit where it would be available for photographing special phenomena connected with the eclipse, thus avoiding any disturbance of the long-focus camera.

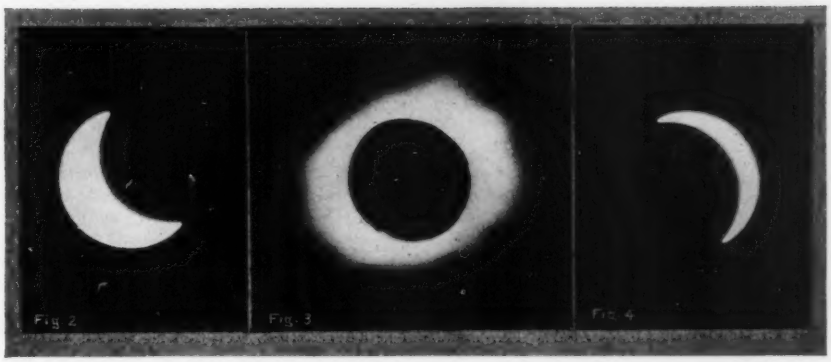
The standpoint selected was level ground only a few feet above sea-level; but from which a clear view could be had of the southern sky over a prospect of snow-covered fields.

My first exposure, shown in Figure 1, was made at 8.16 A.M., fifteen minutes after the commencement of the eclipse. This shows the character of the clouds which partly obscured the sun for awhile. Being a contact-print from the original negative, Figure 1 also shows the size of image of the sun produced by a 17-inch lens. I employed the stop marked F/32, which gave me, with the single lens, an effective aperture of approximately F/90; capped the lens with the ray-filter before mentioned and gave an exposure of one second.

The next phase recorded is shown in Figure 2, made at 8.51 A.M.—approximately twenty minutes before the beginning of totality. By this time the clouds had entirely disappeared, leaving the air exceptionally clear to all appearances. On account of the strength of the light I used the smallest lens-stop available, which possessed a working-value of close to F/128. The same exposure was allowed—one second with ray-filter.

Figure 3 represents the corona as seen during the first half of totality. Before making this exposure I removed the ray-filter and opened the lens to full aperture—F/8 of the doublet, which gave an effective aperture of practically F/23 with the 17-inch single element—and then exposed the plate for twenty seconds to make sure of registering the less luminous parts of the outer corona that were visible to the eye. However, from the manner in which the image developed, I believe a considerably shorter exposure would have been sufficient for the purpose. It would have given a more satisfactory finished record by virtually preventing the distortion of the moon's disk now noticeable. This was caused by movement of the moon while the lens was open. Regarding this distortion, I may point out that the deviation from a true circle in the shape of the moon is *not* the result of an *elongation* of the image, such as would occur from giving a long exposure upon the moon at night; but, instead, it is brought about by a *contraction* of the image of the moon's disk, due to the fact that the moon, being a dark body during a solar eclipse, made no impression upon the plate, its shape being outlined only by the coronal light. Consequently, as the dark orb of the moon traveled across this luminous field, the image of the latter followed in the wake of the moon, gradually overlapping the outline of the moon as first impressed upon the sensitive-plate.

At mid-totality the altitude of the sun was 18.4 degrees, according to a table in the special eclipse supplement to the *American Ephemeris for 1925*—not by any means a high angle above the horizon; yet, the general luminosity of the atmosphere and the brightness of the corona were much greater than I had been led to expect. This, indeed, appeared to be the experience of most observers, including among others the *Scientific American* party at Easthampton, Long Island, which, according to reports, obtained photographs which showed surprisingly



FIGURES 2, 3 AND 4 WILLIAM S. DAVIS

large coronal streamers, some extending several times as far beyond the sun as the diameter of the latter. The same observers were also quoted as noting the light given out by the corona was nearly twice as brilliant as that of the full moon. On the other hand, scientific observers in Connecticut reported the light as being less brilliant than moonlight, and aërial observers stationed at high altitudes were quoted as stating that intense darkness prevailed during totality. These local variations were explained by Mr. Luyten of the Harvard Observatory in the course of an article which appeared in *The New York Times* as being due to atmospheric conditions, even a slight haze, such as would be invisible to an observer from below, increasing the diffusion of the light and, in consequence, the general luminosity of the lower atmosphere. The presence of the snow also, without doubt, added to the apparent illumination of the landscape.

Figure 4 represents a stage of the partial phase after totality. This was made at 9.20 o'clock, exposure one second, with the lens working at an effective aperture of F/45 and capped by the ray-filter.

The negatives of the four exposures just described were developed by the tray-method in a hydrochinone developer which contained

FIGURE 5 WILLIAM S. DAVIS

XUM

some bromide, the object being to obtain clean-cut contrasts. To obtain a fairly large image in the finished pictures, without resorting to the use of an enlarger every time a print was wanted, I made enlarged transparencies upon Hammer Slow plates from the original negatives of Figures 2, 3 and 4, getting a magnification of between six and seven diameters, and from these transparencies new negatives were made by contact-printing upon the same kind of plates.

Figure 5 gives an idea of the type of cast-shadows present when the sun had been reduced to the shape of a new moon during the period preceding totality, the crescent shape of the sun being repeated in the forms of the smaller shadows. The shadow-pattern shown was cast by tree-branches upon the side of a concrete building, and notwithstanding the fact that the sun was nearly covered at this period—some five minutes before the commencement of totality—there was enough light to permit visual focusing of the image upon the groundglass. For this subject I used the 3¼ x 4¼ camera, stopped the lens to F/8 and gave an exposure of one second upon a Wratten panchromatic plate. The exposure proved ample to produce a negative of good density when the plate was developed in an ordinary metal-hydrochinone developer.

About fifteen seconds before totality I made an exposure upon a snow-covered foreground in an attempt to catch the elusive "shadow-bands" then flitting along. I gave a slow snap of 1/5 second, because of the condition of the light, with lens-stop at F/6.3, using a panchromatic plate. Half-a-minute after the end of totality, the experiment was repeated; but because of better lighting the shutter was speeded up to 1/25 second, using this time a Kodak film-pack film. Upon development no traces of the shadow-bands could be found in the image of either negative—evidently the shadows were moving too swiftly for the shutter-speeds necessarily employed—but to me the negatives were of some interest as indicating the degree of actinic power possessed by the light at the times mentioned, since the detail and density of each image showed the exposures to have been nearly correct.

By way of confirming the visual impression of many observers that an unexpected amount of luminosity prevailed during the period of totality, I include with my illustrations one from a negative made by my friend Mr. L. V. Richard, who had a camera set up near mine. The exposure was made during an early stage of totality on an orthonon plate, using a 6-inch lens at F/11. Time of exposure; 5 seconds. The negative received normal treatment in development and shows quite a remarkable amount of detail in the landscape, considering the shortness of the exposure and the conditions under which it was made. Even with snow on the ground a much longer exposure than the one named would be necessary upon a moonlight night to register any detail. Consequently, the only deduction one can draw is that in this instance, at least, the actinic power of the coronal light was very much greater than that of ordinary moonlight.

THE LANTERN L. BENG GUATT

NUMBER ONE BEN MASER

Photography Solves an Interesting Problem

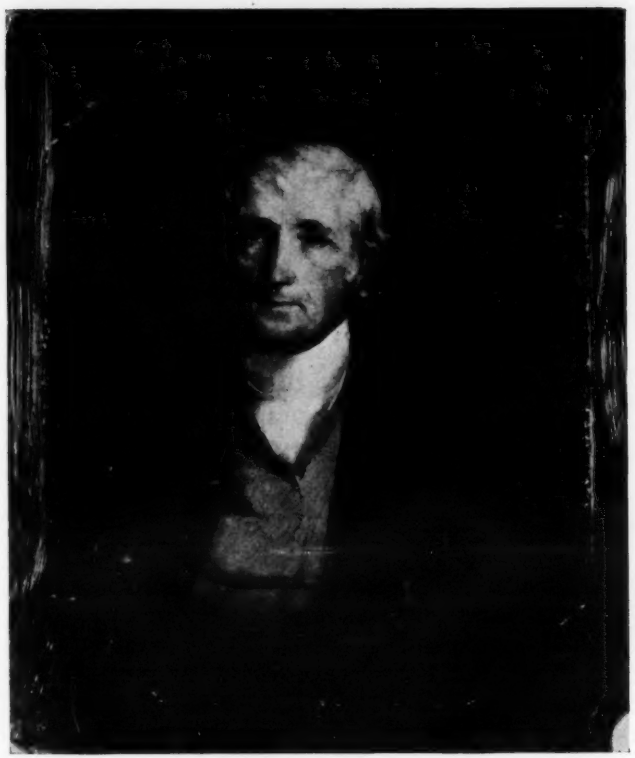
BEN MASER

IN the possession of his descendants, is an oil-painting of John McMullan, eminent nineteenth century silversmith, by Joseph Ord. Recently these owners of the portrait discovered an old, musty Daguerreotype that appeared to be an exact copy of it. The image being reversed, and the detail rather muddy, positive identification was very difficult; so they took both canvas and plate to the curators at the Pennsylvania Museum in Philadelphia, for analysis.

An exact, color-true copy of the oil, that brought out shading and minute details, was made by the Museum's expert Photographer, Mr. C. C. Whitenack. A Panchromatic plate and medium strong filter were used. Photograph Number One shows the result. Print Number Two is a reproduction of the Daguerreotype. To obtain detail in this, color-plate and filter were used, and the exposure made in an even light, with an anastigmat lens. Shadows barely visible in the original, are quite clear here. This duplicate was then copied on a stripping plate, which was printed from the reverse side so as to make the image coincide with that of the painting. Photograph Number Three shows this.

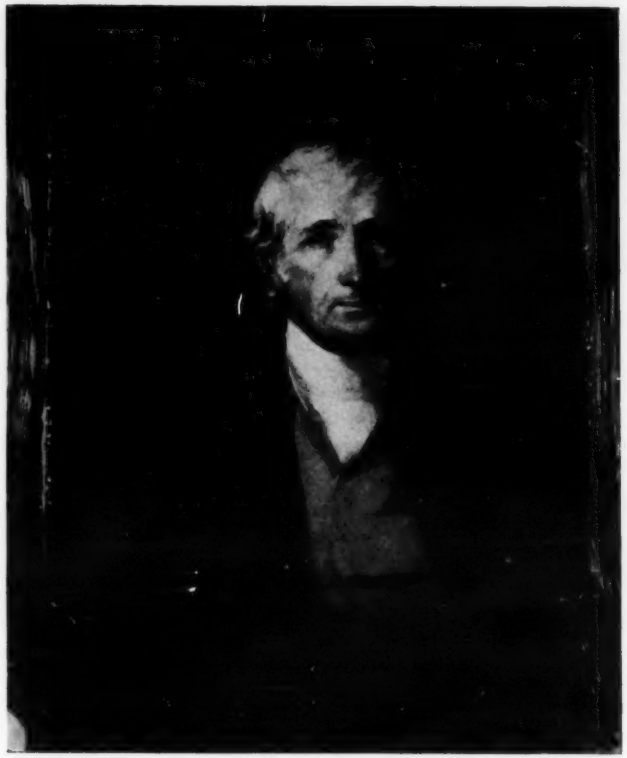
By carefully comparing both copies, differences were readily noticed; and it was apparent that McMullan was younger looking at the time the Daguerreotype was made than when the portrait was painted. If you will follow the prints minutely, you will notice this fact, and the little discrepancies like the difference in the

XUM



NUMBER TWO

BEN MASER



NUMBER THREE

curl of the hair at the back of the neck. Since the picture is such as to make it very doubtful that it could have been photographed from life by the Daguerreotype process, the conclusion drawn was that the canvas is probably a copy of a previous original, of which the plate is a facsimile. Ord executed the painting in 1850, so the Daguerreotype must have been made some time between 1840 and that date. At the speed of the process in this period, it would have been impossible for a man to sit unmoving long enough to yield such a result as we have.

An extremely interesting problem, this. No doubt it would have taken all kinds of trouble and experts to trace these facts otherwise. Crafty Photography, through the eagle eye of a lens and the proper manipulation of light and material, has done it simply and conclusively.

Practical Kinematography

HERBERT C. McKAY

(*Book Rights Reserved*)

Chapter VI—Printing the Kinogram

THE principles of straight printing have already been explained in the first volume of this series, "Kinematography for the Amateur"; but there is fully as much manipulation possible in printing motion-picture film as there is in printing still-photographs.

The printing-machine used should have some light control which can be adjusted while the machine is in operation. If there is no such control, it may be added in two ways. One is to obtain an old studio-shutter with an aperture of two inches or more. This is placed between the shutter and the aperture of the printer, if possible; or just behind the shutter if necessary. In using a continuous printer, this shutter is placed just at the back of the aperture. This shutter is then connected by a rod or rod-and-bell crank so that the iris may be closed by pulling the rod, which extends through a small hole in the printing-machine case. Thus the amount of light admitted to the film is under mechanical control. The iris should not be so close that an iris-out effect is obtained.

Another, and more simple expedient, is to obtain a small, porcelain-base rheostat and connect it into the lamp-circuit. Then by adjusting it the lamp will burn more or less brilliantly, according to the adjustment of the rheostat. It must be remembered that the light loses actinic quality far more rapidly than it does visual luminosity, because as the rheostat is thrown into use, the lamp filament not only grows more dim, but also assumes a greater and greater hue of yellow and motion-picture positive film is very insensitive to yellow light.

In case it is discovered that a fade has been omitted which is necessary to the picture, it is not necessary to try to duplicate the film, nor is it necessary for the amateur to try that most perplexing job, a chemical fade. The chemical fade is easily done in the large laboratories; but the amateur rarely obtains a uniform gradation with the little practice he gets.

In making printer-fades, remember that the underexposure of the negative has an effect corresponding to the overexposure of the print. In other words, while the camera fades out the light admitted to the negative until only clear film is obtained upon development, the printing must gradually overexpose until the positive is "burned up" and so produces a black film just as though it were printed at normal light under a gradually clearing negative.

The light must be so arranged that the normal light is considerably below the maximum brilliancy. Now run the film at normal light until the time arrives for the fade-out. Then gradually increase the brilliancy of the light until at the end of four or five feet the positive is "burned up", actinically speaking. Conversely for the fade-in, the light is started at maximum brilliancy and gradually decreased in intensity until the predetermined normal is reached, after which the scene is finished at that light. Many kinematographers who have no automatic dissolve on their cameras habitually use this method for fading as it relieves them of the trouble of a hand-fade, and also allows more latitude in selecting the proper time for the fade.

In like manner the printer is often used to obtain the curtain-effect, either vertical or horizontal, as this also relieves the operator from having to operate the curtain-dissolve while cranking. To use the curtain-dissolve in the printer it is necessary to make the corresponding masks. To do this the camera is filled with positive stock and focused upon an evenly

XUM

lighted white background. The lens is then thrown slightly out of focus so that the weave of the curtain or other texture is not shown. Now crank at normal speed while operating the curtain-dissolve device. It is well to give three or four times the normal exposure, *i.e.*, use F/4.5 or F/6.3 when the normal exposure calls for F/8 to F/16. This will "burn up" the exposed portions while the opaque leaves of the device will protect the rest of the film. The proper exposure is determined by trial. Too much overexposure will give halation which may or may not be desirable according to the taste of the operator.

When developed this film will start with a solid black frame, as it is a negative, and as the film progresses, the edges of the frame clear progressively until there is only a narrow band of black in the center of the frame. This grows smaller until it disappears and the frame is all clear.

When this film is dry it is placed in the printer and a corresponding mask made. When the film is started, both films should be punched together so that a registration-mark may be obtained. When developed this film will, of course, be just the reverse of the first, so that when superimposed, a solid black film appears. We shall call the original positive, film number one, and the print, film number two.

Now let us take the negative which we desire to print with a curtain-dissolve. We shall dissolve out, that is the picture will be obscured by opaque segments advancing progressively from the edges of the frame. At the frame where the dissolve should begin we place film number two between the negative and the aperture, leaving negative and positive stock in contact to ensure a sharp image. The frame is marked where the punched frame of film number two first comes into the aperture. The three films are now run through the printer. Film number two has thus obscured the scene progressively, but if developed at this stage the positive would show the scene gradually cut down but leaving the screen *white*. To avoid this, as soon as the film is run through with mask film number two, the positive stock only is rewound. Now mask film number one is inserted by matching the punch and the mark made when inserting mask film number two. The film is now run through the printer a second time. This time the black portion of the mask film protects the image from a second exposure, which would obscure it, while the outer portions of the frames, which have received no image, are darkened by exposure to the printing-light. It will be noticed that in the second run the negative is not used, for if it were, the edges which should be printed black would receive an impression of the image, and the curtain-effect would appear to be semi-transparent. This effect might be used to advantage at some time. In like manner, circle-in and circle-out can be printed in, or any other moving mask. The dissolve-in is accomplished by using the same masks, turned end-for-end.

Now suppose that you were asked to film the tale from the Arabian Nights, "The Flight of the Magic Carpet". This film would show the carpet with the Prince and Princess upon it flying through the air. The novice would probably study himself ill and finish by calling for elaborate effects which would cost a small fortune and still be far from successful. The seasoned kinematographer would go about it with no unusual equipment and do it this way.

The first thing to be done would be to select the scene for the background. A scene should be selected which may be photographed while the assistant "pams" the tripod. Also there should be no immediate foreground to accent the circular effect. The ideal location for such a picture would be from a high tower. If a long-focus lens is used, and one with a consequently narrower angle, a shorter pam will give an illusion of a large amount of travel. However, a scenic background is obtained which moves across the film cyclorama fashion.

Then a pure white ground and background is erected and well lighted, so that no background detail will appear in the finished film. The camera is turned a quarter turn on the tripod so that the tilt sways it from side to side instead of up and down. Now tilt the camera a little and arrange your subjects.

A rug is spread upon the white ground, and boxes and other objects placed under it to make it appear wavy. The subjects are then placed upon this rug, and grasp the edges of the rug as though holding on. Now focus the camera and see that the tilt is so that the front end of the rug is somewhat higher than the back, but not much. Now expose the film, as you crank have an assistant rock the camera a very little by operating the tilt-crank. The movement should not exceed 10° in either direction from the vertical. When you tilt the camera to your right, supposing the subjects face your left, direct them to lean back, then as you tilt left, direct them to lean forward. Your direction should be such that the actors attempt to keep their bodies parallel to the vertical place of the film. They will probably respond with a jerky movement which is to be desired. When this film is developed it will show the rug with its occupants waving up and down while with

XUM

LITTLE ADVENTURERS DR. K. KOIKE

each move of the rug the occupants try to maintain their balance.

Now we shall proceed to combine the films. The first thing to do is to print the film of the carpet. This should be greatly overprinted. This is developed and shows the carpet picture as a silhouette, all black, and without detail, upon a clear film background. Because of this necessary overprinting it is necessary to have the white background well lighted in making the negative so that the light will not strike through and gray the clear film.

This print is a blocking-out mask. Both it and its negative should carry registration-marks, so that subsequent printings may be in register. Thread the printer with the scene negative and between the negative and aperture, insert the *print* of the carpet negative. Make a registration-mark and print. Place the negative and mask at one side and rewind the positive stock. Register the carpet *negative* and print it on the positive stock. If the registration has been properly done the finished film will show a landscape passing across the screen, while suspended in the air, the rug and its occupants rock gently as though striking air-currents. For better illusion this rocking should be irregular. It will be seen from this example that a moving object may be photographed moving across the screen, or remaining on the screen while the landscape passes across the frame.

Suppose that you wished to show the progress of the carpet from the upper window of a castle. As this is a fairy tale the more fantastic the scene, the better it will be. Obtain a suitable illustration of a fairy castle and photograph it. Set this film aside. Next secure an articulated cardboard puppet of an ogre, such as may be found in children's cut-out toys. Photograph this against a white background just as you did the carpet, imparting motion as explained under "Stop Motion". Develop this film and set aside. Now set up on the castle, as at first, making sure by some registration-marks that it is just exactly in the same position as at first. Now place a mask in the mask-box which will obscure everything from the nearer window edge to the corresponding frame edge. With this mask in place photograph the carpet as in the first example, but pam so as to move them across the frame from the direction of the window across the frame and exiting at the opposite side.

Now start the printing. First print the castle negative with the dark prints of both ogre and carpet between it and the aperture. Lay aside the castle negative and carpet print. Run the positive stock through the printer again with the carpet negative, still using the ogre print; but in this case the ogre print lies behind the carpet negative. Finally run through with only the ogre negative and positive stock. Thus

XUM

three separate prints are made on one film. The mask blocked out the carpet so that it would not register until it passed the line of the closer edge of the window. Thus the carpet appears to fly out of a window in the castle, while in the foreground stands a huge ogre, towering above the castle, while the carpet flies through the air in the distance, passing behind him.

If more than three printing processes are to be used, it is best to make combination masks before printing, because four thicknesses of film is all that can be run through the printing machine with any satisfactory results. These masks are made in the same manner. For example in the above case: The ogre negative is used to make a dark masking-print. Now using the same film, print the dark carpet masking-print on the same film. Develop and a black masking-print will be obtained which shows motions of both elements. This combination mask is run with the castle scene. Then for the carpet print, a dark masking-print of the ogre will be necessary; but no separate mask of the carpet is needed. It will be noticed from this that the print is made in planes. Now suppose that a four-plane picture is desired. This will call for a background with three separate moving units in planes number three, number two and foreground. The following is the procedure:

Make combination mask of foreground, No. 1, No. 2.

Make combination mask of foreground and No. 1.

Make mask of foreground.

Print background with triple mask.

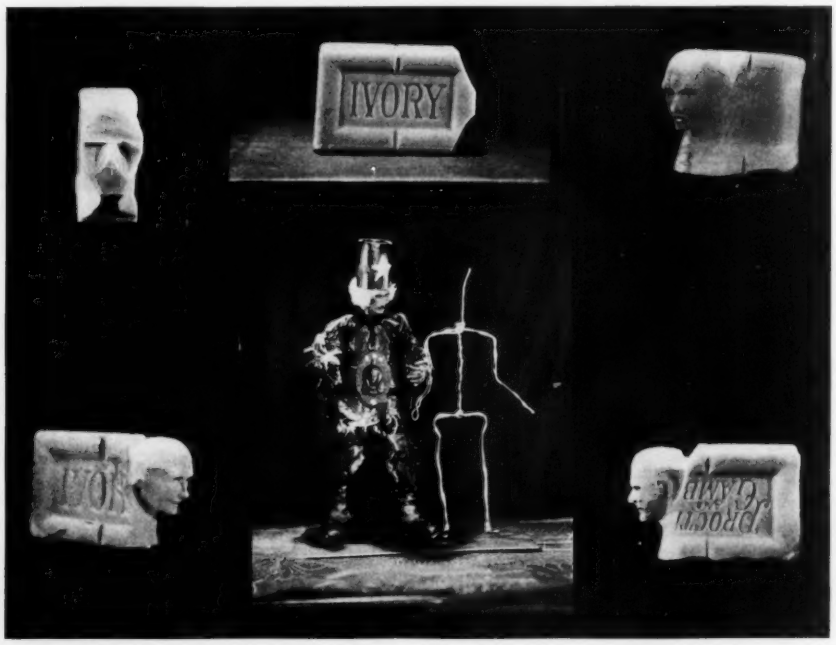
Print plane No. 2 with double mask.

Print plane No. 1 with foreground mask.

Print foreground.

The one great thing to see is that the black portions of both mask and superimposed prints are heavy enough to prevent light passing through. It will be seen that the number of superimposed prints is limited, for a small amount of light will necessarily pass through the black and after a time this will be great enough to fog the portions of the print which are so exposed time after time. Also, two different superimposed units is about all that will look well upon the screen.

(*To be continued*)



VARIOUS STAGES OF SOAP-DOLLS LATIMER J. WILSON

THE LEADING CHARACTERS — LATIMER J. WILSON

A Home-made Movie Star

LATIMER J. WILSON

IN meeting a problem in the production of a motion-picture for use at a private entertainment an idea was stumbled upon which may be interesting to the average individual who likes to do things. The story of the scenario held many fantastic scenes, one of which required a grotesque "King of Goblins" to appear with one of the characters in the play. It was found that the Goblin king could be better manufactured than impersonated by a living actor. But how was the dummy to be made? That was the problem.

Then the idea of making the head of the puppet out of a cake of Ivory soap was suddenly thought of. At first a slanting plane was cut from the top of the cake at one end, to allow for the projection of the nose of the dummy. Another plane was cut from the bottom of the end to indicate the beginning of the chin and neck. The head was shaped at the top in the form of an oval with the broad part at the forehead. Another oval was cut down to represent the face, the broad part at the top of the forehead and the small part at the chin. The front of the face was then cut away from each side of the nose, care being taken to keep the nose in the center of the face, in a straight vertical line. Then the eye-sockets were cut out in a horizontal line one third the way down from the top of the forehead. The tip of the nose measured another third, the nose occupying the exact middle third of the space from the top of the forehead to the chin. Only about an hour was required to shape the head of the "king."

The cutting at this stage was rough and angular and had to be smoothed down with the penknife. Finally, a small brush dipped in water was worked over the face until the angles were removed and the features were sufficiently smooth. Then the head was painted with yellow and white watercolors, the cheeks were tinted with red and the lips were painted red. The eyebrows and pupils of the eyes were painted black and cotton was glued on the head to represent white hair. If any other color had been desired the cotton could have been painted.

To make a figure move in motion-pictures it is necessary to change the positions of arms and legs and head when each separate picture is made. It is the rapid succession of pictures, each stopping one-sixteenth of a second, which

XUM

makes "motion" on the screen. Thus the position of the dummy in each picture had to be adjusted to represent the natural positions that would alter as the series of pictures were run off, the images being blended by the eye so that continuous movement would be seen.

In order to make the dummy "king" movable, his body was constructed of flexible wire. Beginning at the end of a strip of wire the first bending took place at the base of the spinal column. Here a right-angle bend was made to the right thigh. Then a downward bend brought the wire to the heel and a foreward bending reached the toe where a loop was made. The wire was then carried back up the right leg, across the thigh to the spinal column, twisting it around the other wire and winding it around the spinal column and across to the left thigh. Then down the left leg in the same way that the right one was made, the wire being brought up again to the spinal column and on up to the base of the neck. It was then carried over to the right shoulder and down to the right wrist where another loop was made, and the wire was brought back up the arm to the shoulder and base of the neck and across to the left shoulder—then down the left arm, and back to the spinal column where it was wound around twice and cut off. That made the whole skeleton a continuous strip of wire as far as the base of the neck. The single wire protruding upward was stuck into the soap-neck of the head, the latter being easily rotated upon it.

To keep the figure from appearing too bony, the wire-frame was wrapped with strips of cloth held firmly by narrow strips of adhesive tape such as surgeons use. The same sort of tape was used to make the shoes by wrapping strips around the wire loops and painting them afterward. The hands were made of surgeons' tape cut in the pattern of gloves and stuck to the end of the wrist loop of wire. The fingers could be easily adjusted to any position.

The foregoing may sound like a lesson in anatomy, but the details are presented so that anyone who would like to make one of these really attractive soap-dolls can do so.

Now for the use of the dummy in pictures. Two negative films were made. One was made of the young girl in the setting of the scene. The second was made of the dummy alone. Each picture of the dummy, and there are several hundred, showed him in an attitude which would harmonize with that of the living person to whom he was supposed to have appeared. The motion on the screen is perfect, and it is difficult to imagine that the Goblin king is not a real person. You see, the two separate films were printed upon the single strip of film that is used in the projection-machine. Thus in the finished picture the inanimate doll becomes a lifelike individual.

THE HERO AND THE LADIES LATIMER J. WILSON

Questions and Answers in Darkroom-Procedure

ED. C. JERMAN

Part II

18. *How may oxidation with tank-development be retarded?*

Answer: By using a close-fitting, impervious float at all times when the solution is not in actual use, and by keeping the tank clean.

19. *What controls the life of a developing-solution?*

Answer: The amount of film-surface developed, temperature at which solution is kept, amount of exposure to air, freedom from contamination, accuracy of compounding, and the care in the selection of the quantity and quality of chemicals used.

20. *How long may a developing-solution be used?*

Answer: It may be used until its action becomes too slow, or until it produces a chemical stain.

21. *How may the condition of a developing-solution be determined?*

Answer: By the time required for proper development, by freedom from stain, and by its color.

22. *Why is it advisable to use the standard package form of developers?*

Answer: The use of the standard package usually ensures the proper quality and quantity of the chemicals required.

23. *Does the package developer deteriorate with age before being dissolved?*

Answer: Not if obtained from a reliable source, and stored in a dry place.

24. *What brand of developer should be used?*

Answer: The brand especially prepared for the films used.

25. *How may developing-tanks be cleaned?*

Answer: By the use of a chemical solvent, not by any abrasive material. Prepared tank-cleaners are available.

26. *In what manner should the film be placed in the developing-solution?*

Answer: The film should be rapidly lowered into the solution and then raised and lowered two or three times in order that air bubbles may be prevented.

27. *What is the function of the Hypo or fixing-solution?*

Answer: To dissolve out the unexposed and undeveloped Silver Bromide, leaving a permanent Silver Oxide image.

28. *What chemicals are used in a fixing-solution?*

Answer: There are several fixing-baths in use. One of the more prominent formulæ contains the following: Sodium Hyposulphite, Sodium Sulphite, Potassium Chrome Alum, Sulphuric Acid, Water.

29. *What is the purpose of each of the chemicals?*

Answer: Sodium Hyposulphite is a solvent for Silver Bromide and is used to dissolve out the unexposed and undeveloped particles of Silver Bromide.

Sodium Sulphite is a preservative and is used to keep the solution in a stable condition.

Potassium Chrome Alum is an astringent and is used to harden or toughen the emulsion.

Sulphuric Acid is used to prevent the solution from becoming alkaline due to developer carried over by the film.

Water is the solvent used to hold the chemicals in solution.

30. *Should distilled water be used in making a fixing-solution?*

Answer: It is rarely necessary to use distilled water.

31. *At what temperature should the chemicals of the fixing-bath be put into solution?*

Answer: About 80° F.

32. *In what order should the chemicals be dissolved?*

Answer: In the order as listed, each being thoroughly dissolved before adding the next. When using standard package follow directions on the label.

33. *Is the quantity and quality of the chemicals used in the fixing-solution important?*

Answer: Yes. Any material variation in the quality or quantity of the chemicals used will result in an unbalanced condition.

34. *Why is it advisable to use the standard package form of fixing-solution?*

Answer: The use of the standard package usually ensures the proper quality and quantity of the chemicals.

35. *Does the package form of fixing-solution deteriorate with age before being dissolved?*

Answer: Very seldom, even if lumps form the quality is not seriously impaired.

36. *What brand of fixing-solution should be used?*

Answer: Any of the standard brands may be used with any of the present films.

37. *What controls the life of the fixing-solution?*

Answer: The amount of film-surface passing through the solution.

(*To be continued*)

XUM

A Paper-Holder for the Enlarging-Easel

E. H. BROWN

YOU would hardly attempt to place a plate or a film in your camera without a suitable plateholder. Not only would it be a nuisance, and somewhat uncertain; but it would be a tedious performance and undoubtedly ruin many negatives. Of course, with the present construction of cameras, it could hardly be done in any event; but in the early days of wet-plate photography it could be—and was done.

With the possible exception of the new vertical enlargers, the usual present-day enlarging-procedure is in a stage of development comparable to the wet-plate days of photography. Focusing and refocusing, pinning the paper to the easel with insecure pins or thumb-tacks, suffering loss of definition at the edges of the paper because of the well-known tendency of the paper to curl, centering the sensitive bromide paper in the dim image cast through the orange filter and, worst of all, smudging the paper with fingermarks; these are typical reasons why many amateurs avoid enlarging. It is costly and wasteful.

What has been needed has been a suitable "paper-holder" and the simple apparatus described below at once eliminates all the faults of the usual paper-pinning darkroom-acrobatics, and adds a very desirable feature to enlarging—speed. The paper-holder prevents fingermarks because the fingers need never touch the surface of the bromide paper, even accidentally. It enables the operator to have a white margin on the finished enlargement without troublesome attention to masking. The paper always lies flat to the very edges and thus ensures marginal definition. Enlarging to exact size is facilitated, because the size of the enlargement is predetermined by the size of the paper-holder. Speed is attained because fussy, awkward pins are done away with. The writer recently made eighteen 8 x 10 enlargements from a negative in twenty-five minutes by using this paper-holder. The necessity of placing the paper on the easel in the dim light afforded by the orange screen is eliminated, as the paper-holder itself is the guide. Two paper-holders are usually ample, viz., 5 x 7 and 8 x 10; but the holder is so inexpensive (costs about 5c. each), and so quickly made that as many sizes may be used as desired.

The accompanying diagram is drawn to scale for the 5 x 7 size. Larger sizes would be constructed on the same plan, the only difference being in the proportionate dimensions, which any one can work out for himself. "A" is simply a piece of cardboard 6½ x 8½ inches—that which is packed in portrait or commercial film will do—with an opening 4¾ x 6¾ inches. This forms a mask with a 7/8-inch border all around.

Now cut two strips of press-board—the slide from an old plateholder will serve admirably as it is just the right thickness—3/4 x 6½ inches, and one strip 3/4 x 5 inches. These are indicated in the diagram by the broken lines, marked "B". Strips of cardboard will also serve for this; but the cardboard should be just a fraction thicker than the thickness of double-weight paper. Glue the two long strips to the sides of the mask, flush with the outside edges, as illustrated, and the short strip to the bottom of the mask. No strip is placed at the top. You now have a mask with a 1/8 inch offset at sides and bottom.

Now take a piece of Beaver or Compo Board—this is the part that may cost 5c.—and cut it to 6½ x 7½ inches. The board is used to form the back of the paper holder and act as a stiffener. It is advisable, although not absolutely necessary, to cover one side of the Beaver Board with clean white paper, firmly and evenly glued all over, wrinkles being removed with a print-roller. The mask "A", after the strips "B" first glued have set, is glued strip side down on the paper-surfaced side of the Beaver Board. It will be noted that the mask projects 7/8 of an inch above the top of the Beaver Board. The top of the Beaver Board is indicated by "C", the board being represented by the dot-and-dash line. For the sake of convenience in drawing, the Beaver Board is shown to be slightly larger than the mask. Actually it is the same width, and 7½ inches long, as explained above.

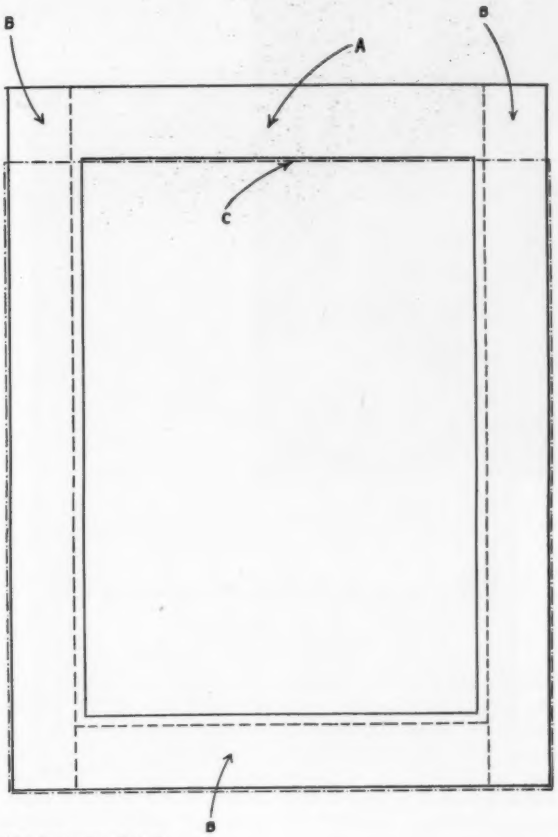
When completed, the mask not only forms a 1/8 inch white margin around the enlargement, but the projection or offset serves to hold the bromide paper firmly in position without curling. The enlarging-paper is easily slid—from the back of the holder at "C"—through the channel formed by the press-board strips. At the top, the enlarging-paper will project 1/8 inch above the inside edge of the mask, thus forming the top part of the white border, and affording a finger-hold to remove the paper after exposure.

In use, a sheet of ordinary white paper—for focusing—is placed in the holder and the

XUM

whole placed against the easel and held securely by three push-pins, one at the bottom and one on each side. These pins are not thrust through the holder, but beside it. They are not removed, but allowed to remain as a guide for the holder. If the easel is marked, the pins may be put in the same place every time an enlargement of this size is made. After focusing, the holder is withdrawn from the push-pins, the focusing-paper replaced by the bromide paper, and the holder again placed on the easel, resting on and between the push-pins.

In making a number of enlargements from one negative, the ease and rapidity offered by the paper-holder are at once apparent. In making several enlargements of the same size from different negatives, it far excels the old method because, leaving the push-pins in place, it is simply a matter of changing the enlarging-paper in the holder. And, in making enlargements of odd sizes, it is still superior to the ordinary method because the paper is always sure to lie flat, finger-marks are avoided, and handling simplified.



(One-half original size)

FIGURE 1 E. H. BROWN

Once this paper-holder is tried out, no operator who uses the horizontal type of enlarging-apparatus will ever again be content to waste time, patience and material fussing with the ordinary method of enlarging.

[We are sure that Mr. Brown's helpful article will be much appreciated. Incidentally, he is the secretary of the Dallas Camera Club, Dallas, Texas, which is an active organisation working with and for its home city. EDITOR.]

FIGURE 1 J. G. PRATT

Photographing Monuments

J. G. PRATT

SOME time ago the writer was called upon to make photographs of a large collection of monuments in connection with an advertising-campaign conducted by a local granite company; and although the subject was not new, nevertheless, in making a specialty of it many interesting things were brought to light in the process of obtaining the best results.

The outfit used was a 5 x 7 view-camera fitted with a 6½-inch, an 8-inch, and a 10-inch lens; a tripod with a tilting-top; a grip filled with film-holders; a poncho and an umbrella. The two latter articles were found desirable because it was soon learned that cloudy days were almost an essential element, and if it rained slightly the work need not be interrupted as much better results could be then obtained than in even moderate sunshine.

A list was furnished of the numerous cemeteries, of the plots and sections, and the inscriptions on the various stones, and the writer sallied forth in anticipation of an easy job. After walking around nearly a whole morning, however, and finding only three or four stones which could not be photographed because they required the evening light, it was decided to map out a plan of campaign. To avoid the difficulty of trying to find the veritable needle in the haystack, an employe of the company was designated to take me over the entire ground and point out each individual stone, and even he had considerable trouble to locate some of them himself. On this trip a note was made of those which required the morning light; those in the shade which could be photographed at any time; and others which should be left until late in the evening, and from then on the work was a pleasure.

The series of lenses of different focal length was of great assistance as in each case the most suitable viewpoint could be utilised. Some-

times it was necessary to park the camera close to the top of another stone and shoot downward; and again an unobstructed view could be gained only by crouching near the ground under a neighboring bush. In such cases if the rise and fall of the front board has not sufficient range to cover the subject, the camera can be pointed up or down sufficiently to help out; but the swingback should be manipulated so as made so thin as to be difficult to hold back properly by shading.

For the most part, the exposures are short, a tenth of a second at stop F/16 being ample on a cloudy day; and, if the sun is shining, a quick snapshot is sufficient. In photographing monuments one is continually fighting extreme contrasts, for the chiseled and beveled portions reflect the light like a mirror; and where the

FIGURE 2 J. G. PRATT

to ensure the plate remaining vertical at all times in order not to distort the vertical lines of the subject.

In extreme cases where it is desirable to photograph a very high object, such as a building, and to cover a comparatively large plate with a lens of short focal length, it is a good plan to point the camera upward and not use the rising front at all, as otherwise, although the picture may appear all right on the groundglass, when it comes to making the print it will be found that the corners of the sky have been cut off or regular development will answer well enough for cloudy-day pictures, those made in bright light will be all blocked up unless a weak developer is used, or one in which the carbonate is much reduced.

The following is a good all-around developer, and if this is used with only half the amount of carbonate called for it will be found excellent in avoiding contrast:

Water	120 ounces
Metol	56 grains
Sulphite	2½ ounces

XUM

FIGURE 3 J. G. PRATT

Hydroquinone	240 grains
Carbonate	3½ ounces
Bromide	48 grains

Normally, it is a six-minute developer for tanks at 70 degrees, and in a tray which is kept in motion to some extent, will give complete development in about four minutes. The use of films instead of plates is of course preferable as being less subject to halation.

Appropriate lighting is of prime importance in photographing anything, especially so with monuments as not only must one obtain the most pleasing rendition of the whole object; but the inscriptions must stand out clearly. It was generally found that standing a little to one side not only gave better depth and perspective to the monument, but brought out the raised or chiseled letters in best relief.

Soft paper, such as Azo grades Nos. 2 and 1, was found most suitable; but even then, in many instances, shading had to be resorted to in order to tone down the dense highlights. If using a printing-frame probably no explanation is necessary. More careful work, however, can be accomplished in the writer's opinion with a printing-machine, although in most of the commercial printers the groundglass is too far down to give the proper short-scale diffusion required for tissue-paper shading. This can be remedied by taking a sheet of clear glass and propping up the corners with pieces of cork or otherwise so that the glass is somewhere between one-quarter and one-half an inch under the negative.

Now using thin, white tissue paper, cut out the portions to be brought out and register this on the clear glass-support directly under the negative. The tissue can also be blued over where desirable to hold back the shadows. Another piece of tissue can often be used to good advantage to lighten up the foreground; but this should be placed further down on the groundglass itself, in order to give a longer scale of diffusion.

Some of the stones were crowded together in the sales-room, and nothing could be done with

FIGURE 4

FIGURE 5

these except to block out the entire background. In several instances, it was found that the only available position from which a stone could be photographed properly, to get the best lighting and perspective, and full detail in the inscriptions, was such that another and larger stone would show unpleasingly in the background, completely ruining the photograph for commercial purposes.

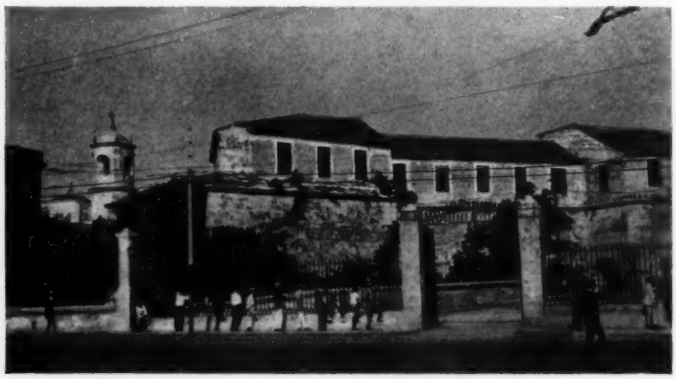
If sufficiently dark or free of highlights to permit a white background, excellent results can be obtained by blocking out the background around the stone, down to the foreground desired. The tops of blades of grass or flowers should also be gone around with the opaque. Then cut out a vignetting-mask, the bottom of which is not over a quarter of an inch larger than the base of the stone and place this under the negative on the clear glass-support. One or two trials will indicate the exact shape of the mask which is desirable, and the depth at which it should be placed in order to give the proper diffusion.

If the stone is light in color or shows extreme highlights in the beveled portions, the only recourse is to give it a black background, and although the process is rather tedious and complicated, if the work must be done it should be done well and the purchaser should be willing to pay for the extra trouble.

First etch out the background around the stone until it is practically clear glass, down to where you wish the foreground to begin. If you are using films, the problem is much simplified as you can cut to within an eighth of an inch with scissors or knife, and then on the retouching-frame, preferably with the aid of a reading-glass, etch clean around the outline of the stone. The tops of the blades of grass do not matter here as they will not show.

Double printing is required to vignette into black, although the process is more tedious than difficult. Place the printing-paper on the negative and after making a pencil-line on same around the outline of the stone, give the proper exposure. Now cut out a mask to the shape of the stone—the top can be a little larger, although at the beginning of the foreground it should be exact. This is placed on top of the negative to prevent fogging, and the printing-paper registered according to the outline previously drawn on same. Another mask should now be laid on the clear glass-support to cover the entire lower portion of the picture up to where the foreground begins. This allows the light to vignette downward, merging the foreground into the jet black background. Now print again, giving sufficient exposure to blacken the beginning of the foreground. At first reading this may seem a terribly complicated process, although if each step is worked out as you go along, it will be found a very interesting experiment.

In estimating on work of this nature more moderate charges can be made than where one has to make a special visit for a single photograph. The writer charges four dollars to photograph a building or similar object, although if it is necessary to go to considerable trouble, such as climbing to the roof of a neighboring building, the price is increased accordingly. It was found in this instance, however, that as many as a dozen photographs could be made in an afternoon's work, and that a very fair profit could be made at one dollar each.



OLD FORT, HAVANA — EDWARD L. HARRISON

Indoor-Photography for the Amateur

WARWICK BARSE MILLER

MANY amateurs are wont to regard indoor-photography as a complicated and learned science to be handled only by experienced professionals. They eye it with a misgiving, wary glance, and give it a wide berth. Yet, they dive head over heels into the illusive art of portraiture and try to produce "artistic portraits" of all their family and trusting friends, with the result that they often become socially ostracised and cordially hated. Indoor-photography has hundreds of different objects: furniture, doors, windows, walls, angles, colors, and a whole gamut of things which seem to symbolise work and brain-storms. Portraiture, on the other hand, has nothing but a camera with a man or a woman in front of it. As a matter of fact indoor-photography requires only a little practical technique, but portraiture requires an inborn talent and judgment which can be developed only by long experience. And technique is always easier than talent. Let's see what a pleasant experiment indoor-photography is.

The first thing to do is to equip ourselves with some apparatus. Of course, you can make an interior with any kind of a camera. Even a Brownie will make a pretty good one if you give plenty of time and happen to get a good focus. But clear detail, correct composition, and color and lighting-effects are all important in producing a really pleasing interior, and these can be obtained only with a swing-back camera with a groundglass where you can see just how the picture is going to look. A swing-back is a frame at the back of the camera that holds the plate or film-pack and groundglass, and can be tilted upward or downward or to either side so that it can be kept parallel with the lens when the camera has to be tilted at some angle, as when photographing a tall building. Instead of tilting the camera, though, most plate-cameras have a rising-front, so that the lens may be raised or lowered or moved sideways while keeping the camera perfectly level. It can be easily seen that the plate and lens must be kept parallel with each other so that the lines in the picture will be parallel. These devices are necessary when it is desired to photograph the greater part of a ceiling or floor, or a stairway, or any view which cannot be made on a dead level. Many hand-cameras now have the rising-front and a groundglass; but they usually haven't the swing-back and cannot be focused in close quarters. Anyway, a regular standard plate-camera is the only practical thing to have. And speaking of plates they are much easier to handle than films. You feel as though you had something in your hand, you can lay them aside easily in developing. You have to use all the film-pack at once or go through the nuisance of messing them trying to separate them in the darkroom, and they curl and wrinkle and jump all over the work table, calling forth bad language.

As to the kind of plate to use, a rapid backed orthochromatic variety is essential. The actinic power of light in room is about 50 to 75% less than it is outdoors, and hence it takes a rapid plate to absorb the objects. Backing is a dull non-reflecting chemical put on the back of a plate to prevent halating. Orthochromatic, of course, means the plate is sensitive to colors.

The lens is a very important factor. What is called a wide-angle lens is needed; that is, a lens which takes in a good deal at the sides—a wide spread. It can be seen that this is necessary for close quarters like interiors where you can't get back very far from the scene. All short-focus lenses are necessarily wide angle. Quick lenses and combination lenses are for the advanced worker and need not bother us here. A firm, wooden tripod and a focusing-cloth completes the equipment. My outfit eventually consisted of a No. V, 4 x 5 Korona camera fitted with an F/6.3 Velostigmat lens. The plate I used was the Standard Orthonon.

At first thought it would naturally seem that the most pleasing picture could be obtained by photographing rooms "as is"—as they are every day, and that the result would be natural and homey. This is true to a certain extent. But all rooms do not look well or give good effects in a picture when they are left "as is." We must arrange the furniture so that the room will be shown to its best advantage. A room cluttered up with a lot of miscellaneous furniture will never please the eye or artistic sense, unless it is a curiosity shop. This necessitates weeding out. If it is a parlor say, with a fireplace, piano, and table and lamp, leave only two or three chairs. Now try to put these chairs in some simple line-design, that is, in a curve that will carry the eye around at first glance. Maybe one at the end of the piano, one on each side of the fireplace, and one near the window. Never put them up to the table, if you want

XUM

formality. Let the bric-a-brac "junk" stay on the mantel, if it must. Far be it for me to blast New England traditions; but personally I would use a shovel and a bucket to them. In the dining-room put two chairs opposite each other at the table and the effect will be human and living without being "boarding-houseish." However, there is another side to this problem. For instance, in a study maybe you want to give an impression of informality and work, and in that case leave the chairs askew and a few books and papers around. With a little study and good taste you can get the effect you want.

I have perhaps gone into too many details, but now I return to the three basic principles. First, be careful not to have any big furniture near the camera or it will appear magnified in the print and out of proportion with everything else. In fact, a totally bare space should be left immediately in front, for it gives a compelling, dignified effect. Secondly, we often want to get the whole room in, but cannot get back far enough. The remedy is to move all the furniture and fixtures back farther towards the other end of the room, leaving each piece, however, in its same relative position, so that the result will be the same room on a reduced scale. Thirdly, always include more of the floor than the ceiling, otherwise the room will look grotesque. A fourth very important point is reflection from mirrors. We often never think of this, and the print shows a glass reflecting the camera or brilliant sunlight. It is best to stand in front of the lens and see that all mirrors are clear.

Lighting is the most ticklish part of the whole business, yet, it becomes very easy when you once get the hang of it. All windows included in the picture must be covered by a shade pulled down. Where there are not curtains covering the edges these shades must be pressed in against the window to shut out any cracks of light. It must be remembered that this outside light is 50 to 75% greater than the rest of the room, and the light in this room must be made as even as possible. The light shade is usually enough, and if pressed against the cross bars on the panes and if the dark shade is left half way up, the shadows will give the effect of a natural window. However, in a dark room where the sun is streaming brilliantly through a window, the dark shade or even both will not be too much. Now this of course takes a lot of light out of the room, and to make up for this every window, door and light not in the view must be used, within reason, of course. If a window is right on the edge of the view, care must be taken that the light won't stream in too strong and reflect on anything or give a Milky Way effect. But in back of the camera let all the shades go to the top, and open the windows and take off the screens, if it is a dark room; for screens really shut out quite a little light and we need every bit we can get. Also open any doors letting in light, and even light the electric lights. And speaking of electric lights I've found that by leaving the light in a shaded lamp on in a picture it will often be just enough to brighten up a beautiful shade. Reflectors and powerful lights need not be bothered with, for the advantage of them can be substituted by ample exposure, which is the factor that determines the success or failure of the print.

Focusing is the most enjoyable part of the work, I think. You can see just how the picture will look and move the camera around at all different angles of the room and arrange things a half dozen times until you get the effect you want. I've spent a whole morning on one room doing this. That's the way to enjoy your work and get a good picture. First be sure and have a good wooden tripod high enough so you won't have to squat and kneel and break your back and crack your knee-joints. Then be sure and place it on a rug so it won't skid all over the hardwood floors. Rack the bellows back and forth until you see the scene well. But all is not in focus. The back is, the front isn't, and vice versa. How can we get both in focus? We can't on the ground-glass; but we can in the print. This is accomplished of course by using a very small stop, which, without going into mathematical details, brings all the lines together in such a fine passage that their visual lengths are rendered equal. I used F/22 all the time and found it to be the highest and the lowest stop at which I could get the best results. Anything less than that takes a pretty long exposure unless you have artificial lighting, and it is apt to give a dull, heavy, ill-lighted effect. However, in a light-colored room F/32 can be used excellently. The point at which the lens should be focused when the exposure is made—conjugate foci—is about half way from the lens to the end of the room, perhaps overlapping the second half. This will merely give an idea about where to focus. I never actually measure the distance. I just rack the lens back and forth until everything is in as equal focus as possible. Then I stop it down to F/22 and see how it looks. If anyone is a mathematical "fiend" he can find out how to determine this conjugate foci by algebra in Hasluck's "Book of Photography", page 360.

Now, after rolling this stumbling block to one side we can compose our picture, and in doing this I have found the following things important

W. H. C. PILLSBURY
RALPH OSBORNE
UNION CAMERA CLUB, BOSTON

BRONX RIVER—AUTUMN FRANK O'NEIL

to keep in mind. Is there any furniture looming up bigger than the rest? (You can easily see now how furniture too near would look in the print.) Examine both sides and top and bottom of the glass and see if everything you want is in. Are there any reflections in that mirror or picture? Are the window-shades pulled down? Can you see the fireplace or is something in the way, or is there anything being hidden? Is there an empty space in front? Does the effect please you? Sometimes, rooms are so dark that it is hard to make anything out on the glass, but electric lights or lamps can be placed in the dark corners until the focusing has been done. I'm writing from the standpoint of working only on bright days and am not concerned with artificial light. Personally I think much better results are obtained by using daylight with plenty of sun. One more point. In rooms with low ceilings, the tripod must not be raised to its full height but only a little less than half the height of the room. Just see that it doesn't look as though you were making the picture from a landing or raised platform.

And now I come to exposure which I said determined the success or failure of the whole picture. Yet, there is little to be said about it. A little experience will tell more. The one important thing to keep in mind; and I think that it is the secret of good indoor-photography, is to give plenty of time. Much of it. Keep adding another minute. In other words overexpose rather than underexpose. This is difficult for us to learn to do at first, because we have been used to dealing in teeny fiftieths and hundreths of seconds, and now we have to educate ourselves for exposures of twenty minutes and half hours. A plate which has been overexposed five minutes can be reduced with no bother or detriment to the picture; and, many times, it

SISTERS J. HERBERT SAUNDERS

need not be touched at all but merely given more time in printing. But a plate that has been underexposed five minutes is doomed. Nothing can save it for the simple reason that no intensifier can bring out something that isn't there.

I have divided rooms into four definite degrees of light intensity: 1—Very light. Sun-parlors, observatories, or any glassed-in rooms. Time exposures, that is, long ones, are impossible unless unnecessary trouble is resorted to in tacking unbleached muslin over all the windows to even the light. A better way is to photograph the room in the daytime at ordinary speeds of 1/25 or 1/50 and then leave the camera in exactly the same position 'till night and expose with flashlight. Oftentimes, you can get a pretty good picture by only a bulb exposure, if the woodwork and furniture are very white.

2—Light rooms such as bedrooms, white wainscoted and white-plastered rooms. These are more common, and require from fifteen to twenty minutes at F/22, depending whether the sun is on their side or not. Nearer twenty minutes in general is always better.

3—Dark rooms, such as studies, libraries, drawing-rooms, halls, etc. Not dark to us, but photographically dark. Twenty-five to thirty minutes at F/22 is none too much for these, and a good thirty when there is much red in the room.

4—Very dark rooms, such as in number 3 where there are not many windows, or the windows are up high and small. It seems as though when you cover the few windows up it is too dark for any plate; but I've found that if you leave a rapid plate exposed long enough it will absorb all the details very clearly. 35 minutes is about right for these.

In reference to this classification two things should be observed. That class two and three are the most common in our homes; and that I have assumed that the amateur will make his pictures only on sunny days. On a bright day

XUM

ON GUARD WILLIAM F. ANDERSON

without sun at least five to ten minutes should be added in each case. My advice to the beginner is to expose a plate under these times and then see for himself whether he needs more or less. There is no scientific means you can tell by. It comes only by a little experience and intuition.

The whole principle of developing indoor exposures is to let them develop very gradually. There are many gradations of contrast, and the problem is to bring out the detail in the darkest shadows and restraining the most brilliantly lighted parts. I overcame it very easily, however, by using a plate tank and mixing the ordinary solution of Eastman 4 x 5 tank developers, then pouring off about one half and filling it up again with water. I then left the plates in the solution at 70 F for 25 minutes. This weak solution gave plenty of opportunity for each part to develop. If you like tray-developing better, the same principle applies. Of course, there is a whole gamut of chemicals you can use to alter the action of developers.

In printing, as you probably know, this principle can be worked too. If the negative is harsh and contrasty, dilute the developer and raise the temperature a little, use soft paper; and, if you insist on being a long-coated scientific chemist, drop a pinch of potassium bromide in, but not too much unless you want the print to look like an ugly bruised spot. I find the Regular and Special Soft Eastman papers the best; but the softest, most pleasing gradations of tone can be obtained with the Artura Iris papers.

I have assumed in this article that the amateur has a plate-camera; but if he hasn't he must by no means think the game's hopeless with a popular film-camera. He can do more with a plate-camera; but for several years I used a Brownie Folding Camera and had excellent fun. Just see that everything is in the finder, measure the distance to the point I mentioned and set the foot-scale to correspond, and use the same stop and time and development.

XUM

"Shade Where Cattle Stand" *E. P. Tinkham*

A Half Holiday

E. P. TINKHAM

On a brief, unplanned vacation
From the daily task,
Better means of relaxation
Could I never ask
Than to idle by a river,
Lounge along its side,
Where the tree-reflections quiver
In its lazy tide.

Where the woodland greets the highway,
And the plowlands end,
Sloping path and winding byway
Riverward extend;
Wildflowers fleck, with wealth of color,
Open spaces green,
While in shady groves, the duller,
Softer tints are seen.

In the denser wood, I loiter.
Startled in their haunt,
Squirrels scurry, reconnoiter,
Courage gain, and vaunt.
Perched in sight, the showy flicker
Calls, while in the brush,
Timid, hidden by the thicker
Foliage, sings the thrush.

From a height, I view the valley,
Just above a ledge,
Then descend, and dally, dally
At the river's edge.
With their branches overspreading
Waters laving sand,
At the shallows, elms are shedding
Shade, where cattle stand.

Aimless but to find employment
For some leisure time,
And recount worthwhile enjoyment,
Is this rambling rhyme
Of an idler by a river,
Lounger at its side,
Where the tree-reflections quiver
In its lazy tide.

XUM

MAGELLANS OF TODAY — Y. MORINAGA

HONORABLE MENTION—MISCELLANEOUS COMPETITION

EDITORIAL

Preparing the Exhibition-Print

ALTHOUGH the attention of the amateur worker is frequently invited to the subject of complete fixation of negatives or prints, it must be admitted that carelessness in this step of photographic operations is widely prevalent. Although the importance of thorough fixation cannot be too strongly emphasised, there are preceding and succeeding operations that also demand the exercise of supreme care. Many workers imagine that so long as the print has been fixed thoroughly, the steps that immediately precede and follow this process need cause the worker little worry. But here he is seriously mistaken; for every step in making the print, even to attaching it to the mount, should be attended with intelligence and thoroughness.

Assuming that the darkroom-illuminant is trustworthy, the careful worker will compound and use the developer as directed by the maker of his printing-medium, observing, too, the temperature of the solution—60 to 70 degrees Fahrenheit. The preparation of the fixing-bath should proceed in accordance with the manufacturer's printed formula—pure water, pure chemicals, and mixed and dissolved in the order given. The stop-bath, where development is instantly arrested, and the print scientifically rinsed, should be used freely. The final washing may seem a purely mechanical operation, but it needs occasional inspection in view of possible obstacles or accidents. The drying of the print is only too frequently the cause of eventual disaster. Why? Simply because the indifferent or careless worker neglected to consider the quality of the blotters employed in the final step of the work. It is safe to say that most makes of blotting-paper contain chemicals that are prejudicial to the durability of the prospective salon-print. The conscientious worker should procure a standard, chemically pure, white blotter. He should also be sure that the print, in this the last stage of the work, has the advantage of pure air. This may seem unnecessary advice; but it should be remembered that framed enlargements are known to have been seriously affected by the presence of carbon monoxide gas (coal-gas), excessive heat and other insidious causes often to be found in old, neglected residences or in poorly constructed apartment-houses. Precautions in this respect, during the process of drying the prints, may well engage the attention of the pictorialist who is eager to produce a print that shall be a credit to his skill and his beloved art.

The actually final stage of the print to be exhibited, or to be framed, is the mounting. It seems almost needless to mention the subject of a chemically pure adhesive; but indifference in this respect has caused the ruin of many a fine print. The wise worker will choose a medium of acknowledged purity and effectiveness. Chemical purity should also characterise the paper and mount to which the photographic print is to be attached, whether wholly or only by the corners or the upper edge. This is important.

During a long period of photographic activity, we have seen innumerable prints in various stages of disintegration. Although the ruin of many of them was caused by the poor quality of the printing-medium employed, carelessness in operations was responsible in most cases. We have before us, at this moment, a print of an attractive wood-interior by an estimable worker, which appeared in PHOTO-ERA about twelve years ago. Its tonal quality, originally, was a superb black; but the print has faded and assumed a uniformly yellowish cast. This condition, probably, was caused by the use of an exhausted fixing-bath or by incomplete elimination of the hypo. Another print that came under our observation, recently—a view of the cathedral of Mexico, made in 1907—was marred by whitish spots which appeared to owe their origin to hypo splashed on the moist print, or to drying the print on cloth or blotters which were contaminated locally with hypo. If necessary, the prints could be restored by bleaching them in a mixture of potassium permanganate and sodium chloride, and redeveloping in a diluted solution with an ordinary developer. In these days, therefore, when pictorial photography is taking a well-merited place among the fine arts, its devotees should exercise the highest technical skill in the performance of their work, so that there may be no room for apprehension or subsequent apologies. When the completed print, executed in whatever medium, shall have been submitted to the supreme requirements, the worker will be in a position to say, with pride and conviction, "This print is permanent."

XUM

ADVANCED COMPETITION

Closing the last day of every month
Address all prints to PHOTO-ERA MAGAZINE, Advanced Competition
Wolfeboro, New Hampshire, U.S.A.

Prizes

First Prize: Value $10.00.
Second Prize: Value $5.00.
Third Prize: Value $3.00.

Honorable Mention: (*a*) Those who win an Honorable Mention Award and are *not regular subscribers* will receive PHOTO-ERA MAGAZINE for six months with the compliments of the Publisher.

(*b*) Those who win an Honorable Mention Award and are *already subscribers* will receive a credit of $1.00 toward the purchase of any standard photographic textbook. This credit to be used within thirty days of receipt in the U.S.A., and within ninety days overseas.

Prizes may be chosen by the winners, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA MAGAZINE, or in books. If preferred, the winner of a first prize may have a solid silver cup, suitably engraved.

No Prize or Honorable Mention pictures are sold, exchanged or the halftone-plates sold without permission, in writing, from the maker of the print. Proceeds of all sales, *excepting halftones*, go to the maker of the picture.

All competition-pictures not returned are used to make up the PHOTO-ERA PICTURE EXHIBIT which is sent to schools, libraries, museums, camera clubs and to responsible organisations for exhibition-purposes, *free of cost*.

Rules

1. This competition is free and open to photographers of ability and in good standing—amateur or professional.

2. Not more than two subjects may be entered, but they must represent, throughout, the personal, unaided work of competitors. Subjects which have appeared in other publications are not eligible, nor may duplicate prints be sold, or entered into competitions elsewhere, before PHOTO-ERA MAGAZINE awards are announced.

3. Prints on rough or linen-finish surface, and sepias, are not suitable for reproduction, and should be accompanied by smooth prints having the same gradations and detail. Prints may be mounted or unmounted.

4. Each print must bear the maker's name and address, the title of the picture, and the name and month of competition, and should be accompanied by a letter, *sent separately*, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer, and printing-process. Enclose return-postage. Data-blanks sent at request.

5. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA MAGAZINE, unless for special reasons. This does not prevent the photographer from disposing of other prints from such negatives *after* he shall have received official recognition.

6. Unsuccessful prints will be returned only when return-postage at the rate of one cent for each two ounces is sent with data. Criticism at request.

7. Prints should be carefully packed between two layers of cellular board so cut that the corrugations run at right-angles to each other.

8. Competitors who have won three first prizes within a twelve-month become ineligible to compete for prizes in this competition for two years thereafter.

Awards—Advanced Competition
Subject—Miscellaneous
Closed February 28, 1925

First Prize: Walter E. Owen.
Second Prize: Walter Rutherford.
Third Prize: F. Y. Ogasawara.

Honorable Mention: Herbert J. Harper; Melvin C. Parrish; Jack De Biase; M. J. Osaki; Louis R. Murray; Francesco Tallarico; Dr. F. F. Sornberger; Frank O'Neil; A. J. Anderson; Arthur L. Richardson; John Van De Water; Duane P. Hotchkiss; Francis L. Bayle; A. L. Tracy; S. Hirano; William Gould; Stan. Warden; Cornelia Clarke; John H. Kemp, Jr.; H. Onishi; Arthur C. K. Hallock; Arthur R. Brown; Elliott H. Wendell; Mrs. Elsa B. Versfelt; Joseph Hamersky; U. Stephen Johnson; Kenneth McLeod, Jr.; Charles Clayton, Jr.; A. D. Blanchard; L. J. Creegan; Geo. W. Case; Wm. S. Davis; Eleanor F. Jones; Walter P. Bruning; Charles Ditchfield; Y. Morinaga; P. MacAdam; F. S. Dellenbaugh, Jr.; E. M. Child.

Subjects for Competition—1925

"Artificial Light Photographs." Closes May 31.
"Miscellaneous." Closes June 30.
"Front-Cover Illustrations." Closes July 31.
"Real Sunrise and Sunset Pictures." August 31.
"Wild and Cultivated Trees." Closes September 30.
"Miscellaneous." Closes October 31.

Photo-Era Prize-Cup

STUDY IN HIGH KEY
WALTER E. OWEN
FIRST PRIZE—MISCELLANEOUS COMPETITION

PATHS OF GLORY — WALTER RUTHERFORD

SECOND PRIZE—MISCELLANEOUS COMPETITION

Advanced Competition

THE subject, "Miscellaneous", brings out a good variety of work and also a variety of workers, some of whom do not, for one reason or another, enter the special subject competitions. This month's pictures are well assorted, from portraiture to still-life, showing some really "good stuff", as the artists like to say. "Study in High Key", page 281, the first prize award, shows fine technical and artistic strength. It is well spaced and harmonious in arrangement; the strongest accents coming in the face and head, as they should. The delineation of the profile and outline of the head against the white ground are especially well done. It requires skill in technique to relieve a light subject against white.

Data: Dull day in November, 3 P.M.; in studio; 8 x 10 view camera, with Wollensak Vesta Portrait lens, at F/6. Exposure 5 seconds on Eastman Superspeed Film; rodinal developer. Enlarged on Wellington Platino Thick Rough, amidol developed.

"Paths of Glory", above. The original of this, in a rich dark sepia, is a joy to behold. Mr. Rutherford does not say whether this was made from the ground or the air, but be that as it may, he surely seized upon the happy moment to make exposure. How fortunate the airplane at right happened to occupy that exact position, where it balances the whole picture, and how keen of perception was the photographer to appreciate it and make it his own. Note also the cloud in upper right corner, in half light, offsetting a similar mass in lower left. It would seem that nature does, at times, indeed very often, if we but have eyes to see, show many a perfect picture, ready for the skilled camerist to record, for future enjoyment and profit. Many, such as this one, never repeat.

Data: September; R. B. Auto Graflex 4 x 5; Berthiot Olor Anastigmat, focus 5.7 inches, at F/8; 1/235 sec. exposure Wratten Panchromatic; pyro-soda. Enlarged on Wellington C. C. Rough, sepia toned.

"Notan", page 283. This title, interpreted, means the distribution of the masses of light and dark, with relation to the whole picture-space. This is a choice example, and we note with æsthetic pleasure, the means employed by the artist to accomplish his desired result, even using his signature as a part of the design. A little masterpiece.

Data: Made in studio; June P.M., 5 x 7 camera, Vitax lens 13 inch, at F/16. Eastman Superspeed Film; 15 seconds, in artificial light. Pyro tank-developed. Printed on Vitava K. by projection.

"A Corner of the Garden", page 284. Another "notan" design. Observe the chicks placed together with the only other highlight, *viz.* the nozzle, and opposed to the darkest mass in the watercan; the hose forming pleasing curves to connect the whole. Not a jarring note in the pattern.

Data: Good light, 3 P.M.; 4 x 5 Graflex, Tessar lens at F/6.3. Exposure 1/195 second on E. K. Superspeed Film, Glycin developer. Print on Veltex.

E. H. WASHBURN.

A Foggy One

AT the photo-counter of a country-drugstore: "Do you really replace films that turn out to be foggy?"

Salesman: "My dear madam, we do it every day."

NOTAN F. Y. OGASAWARA

THIRD PRIZE—MISCELLANEOUS COMPETITION

Something to Think About from Mr. Blacar

April 1, 1925.

My Dear Mr. Beardsley:

In hand-camera work the question often comes up as to how long one can hold the camera still enough for safety. Of course, there is a great difference in people's nerves and no two alike; but there is one point that I have never seen referred to, and that is the jarring of the camera by operating the release.

I called at a doctor's a few days ago and he syringed my throat and when he shut his fingers on the bulb he jerked his arm and his whole body, and nearly pushed me out of the chair, and hurt me like blazes when all that he should have done was to close his fingers on the bulb. It is so with many camerists, from nervousness, carelessness, or from never having given thought to the matter. How about pulling the trigger on a rifle or a revolver? Do you pull it with the finger, the arm, or with the whole body?

Some might take it for granted that they could not jar a camera by using the wire-release; but if they would look the matter over carefully and experiment with an unfilled camera, I think that they would find that they could jar it considerably. Some operate the release for snapshots by a gentle, steady pressure 'till the shutter *works*; some by a quick nervous jerk and let go instantly; some by a quick hard jerk and *hold* the *pressure* some little time after.

When the wire-release hangs loose from the shutter, it seems as if the camera could not be jarred by it; but a little experimenting will show that if the release is pressed and *held*, it becomes like a very stiff, hard cord and that the camera can be moved by *pushing* the release as well as by *pulling* it; especially, if the release is a short one, as most are.

I think that for one who makes pictures seriously, a few hours devoted to the study of the shutter-release would be a paying proposition.

The movement of a camera that spoils the picture must of course be *after* the *shutter* has begun to open, and just when the release-cord is at it's *hardest* and *stiffest*, when it would be the likeliest to move the camera if much force were used in pressing the button.

A good test-plan would appear to be to let some friend hold the camera and see if he can hold it still while you *violently* work the release. Also, to place the camera on a cushion made of several soft handkerchiefs crumpled up so as to make a light pile and see if working the release would jar it or not.

I think that the whole subject is worth serious study

A CORNER OF THE GARDEN — H. ONISHI

HONORABLE MENTION—MISCELLANEOUS COMPETITION

and I think that this handkerchief test would wake one up to the importance of it; for with the release-cord stiffened up by pressure, the camera can be pushed and led around like a little dog on a wire.

Even when using a *long* wire-release it must stiffen its whole length to work the shutter and a little study will show that it is not such a perfect thing as it is thought to be; and, as to the *short* ones as commonly used, they are a very crude, coarse affair, as tests will show.

WILLIAM H. BLACAR.

P.S.—How would it do for you to hold the camera in your hands *with your eyes shut* while I operate the release in various ways and with varying force, and for you to do the judging by the *feel*?

Certainly you would not know when I pressed the button unless it jarred the camera to some extent.

To Clear Negatives or Diapositives

A SIMPLE bath that keeps well, to clear negatives or diapositives, can be prepared with 15 grammes alum, 15 grammes iron sulphate, and 15 grammes citric acid, dissolved in 350 cc. water. The negative or diapositive is first soaked in water to soften the gelatine-coat and is then immersed in the clearing-bath for about 20 minutes. If on coming from this bath the plate appears too weak, it may be strengthened with sublimate or with ammonia, first washing it carefully. This formula has also been found excellent to eliminate yellow fog on diapositives and for spots or strong fog on negatives.—Exchange.

Making Good Quality Ground-glass

GROUND-GLASS in photography is useful in many ways and the making of it worth while, if a good quality can be produced. The instructions usually provide for rubbing together two sheets of glass between which emery-powder and water is sprinkled as an abrasive. Right, as far as it goes; but better results can be had by proceeding as follows: The grains of emery-powder differ considerably in size and, used as above, the coarse grains will regulate the fineness of the ground-glass produced. Take two glass tumblers and fill one with water. Add to the water a quantity of emery-powder and stir vigorously with a spoon. If closely observed it will be seen that the larger and heavier grains will now settle rapidly while the smaller ones trail on behind. Consequently, after a few moments, turn most of the water into the second glass without disturbing the sediment in the first. Allow the second glass to stand until settled, turn off the water and the resulting powder or rather mud, freed of the coarse grains, will produce an excellent ground-glass, suitable for most purposes. The above proceeding can be repeated, if desired, with a very fine mud-ground effect; but it takes considerably longer to work the glass into prime condition. For grinding, if a sheet of wet glass is laid upon a folded newspaper it will not slip about when work begins and, instead of using a second glass of the same size, a small piece of plate-glass, about two inches square, is more convenient to handle.

CHARLES A. HARRIS.

AMATEUR PHOTOGRAPHER (showing pictures)—"Don't you think it is about time I exhibited something?"

CANDID FRIEND—"Yes, a little talent."—Exchange.

SUBJECT FOR NEXT COMPETITION

ADVANCED WORKERS

SILHOUETTE-STUDY — WILLIAM LUDLUM

Advanced Competition
Miscellaneous
Ending July 31, 1925

In popular parlance we started something with our last Miscellaneous Competition. It was the largest of its kind in recent Photo-Era history. Many well-known men and women pictorialists contributed exceptional prints and the jury was placed in a difficult position to make the final awards. Now we are to have another similar competition. Certainly, the number of entries in the last Miscellaneous Competition indicated that the majority of our readers like to have no specified subject. Yet, isn't it a good thing, once in a while, to work for a definite objective?

Really, there is not much for me to say with regard to preparing prints for the coming Miscellaneous Competition. Any subject is eligible whether it be a portrait, marine, landscape, indoor genre or airplane view. In fact any picture which the maker believes represents some of his or her best work is eligible to this competition. However, let me add a word of caution. Do not consider this competition as a sort of dumping-ground for prints which seem to fit in nowhere else or have been considered not quite up to standard. Let every contributor remember that it is always best to be true to oneself. That is, send in a print because it is honest work, whatever the subject may be; but let not this competition be a temptation to "look around for something to send in by way of a print". Aim just as high and as accurately at the Miscellaneous Competition as though everything depended upon it. If all will do that, the next competition will be a record breaker in number of entries and in the quality of the work submitted. It will be no small honor to win a prize or Honorable Mention in such a competition. However, first aim high with good work and let the prize awards take care of themselves. Awards never take the place of real happiness at true accomplishment.

A. H. Beardsley.

BEGINNERS' COMPETITION

Closing the last day of every month
Address all prints to PHOTO-ERA MAGAZINE, Beginners' Competition
Wolfeboro, New Hampshire, U.S.A.

Prizes

First Prize: Value $5.00.
Second Prize: Value $2.00.

Honorable Mention: (*a*) Those who win an Honorable Mention Award and are *not regular subscribers* will receive PHOTO-ERA MAGAZINE for six months with the compliments of the Publisher.

(*b*) Those who win an Honorable Mention Award and are *already subscribers* will receive a credit of $1.00 toward the purchase of any standard photographic textbook. This credit to be used within thirty days of receipt in the U.S.A., and within ninety days overseas.

Prizes, chosen by the winner, will be awarded in photo-materials, sold by any dealer or manufacturer who advertises in PHOTO-ERA MAGAZINE, or in books.

No Prize or Honorable Mention pictures are sold, exchanged or the halftone-plates sold without permission, in writing, from the maker of the print. Proceeds of all sales, *excepting halftones*, go to the maker of the picture.

Rules

1. This competition is open only to beginners of limited experience with practical camera-activity, and whose work submitted here is without any practical help from friend or professional expert.

2. Workers are eligible so long as they have not won a first prize in this competition. Winners of the first prize automatically drop out permanently, but may enter prints in the Advanced Class at any time.

3. Prints eligible are contact-prints and enlargements up to and including 8 x 10 inches.

4. Prints representing no more than *two* different subjects, for any one competition, and printed in any medium except blue-print, may be entered. Prints may be mounted or unmounted, as desired. Subjects which have appeared in other publications are not eligible, nor may duplicate prints be sold, or entered in competitions elsewhere, before PHOTO-ERA MAGAZINE awards are announced.

5. Prints on rough or linen-finish surface, and sepias, are not suitable for reproduction, and should be accompanied by smooth prints having the same gradations and detail.

6. Each print entered must bear the maker's name and address, the title of the picture, and the name and month of competition, and should be accompanied by a letter, *sent separately*, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer and printing-process. Enclose return-postage in this letter. Data-blanks sent at request. Criticism at request.

7. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA MAGAZINE, unless for special reasons. This does not prevent the photographer from disposing of other prints from such negatives *after* he has received official recognition.

8. Unsuccessful prints will be returned only when return-postage at the rate of one cent for each two ounces or fraction is sent with data.

9. Prints should be carefully packed between two layers of cellular board so cut that the corrugations run at right-angles to each other.

Awards—Beginners' Competition

Subject—Miscellaneous

Closed February 28, 1925

First Prize: Burton Slade, Jr.
Second Prize: S. Horino.

Honorable Mention: C. A. Pierce; Lieut. Alfred E. McKenney; G. Douglas Smith; Paul C. Miller; Glen Gehrke; L. G. Wells; James A. Bell; S. B. Priest; Irving Sparks.

Don't Be Just a Snapshooter

SOON there will be the annual exodus to the country or seashore for week-end and longer vacations. A camera is a necessary part of the holiday-equipment, and rightly so. However, there are comparatively few vacationists who use their cameras to the best advantage. In short, they make no effort to get out of the snapshooter class. They are satisfied with pictures of members of their party, the hotel or camp, a few hurriedly made views and photo-finishing as done by the corner drug-store. They care little for composition, technique or the selection of good subject-material. In fact, often they fail to make even good record photographs. There are thousands of such pictures made every summer and there are thousands of albums filled with them. To be sure, the manufacturers and dealers are benefitted by the snapshooter, so far as the sale of plates, films and paper is concerned; but is all this really good for the art and science of photography?

Perhaps the reader will feel inclined to remind me that to insist upon strict attention to all pictorial rules would have a tendency to deter the beginner from making any pictures at all. Let me hasten to say that this is not the purpose of this little article. Nevertheless, I do hope to show the advisability of getting out of the snapshooter class; for, after all, there will be more lasting satisfaction in photography, if it is done. It is not necessary for me to remind my readers that there are few things which are a greater bore than to be compelled to sit down with some snapshooter and have him go through his collection of pictures. Usually, most of them are of persons who are total strangers and who will soon be forgotten by the snapshooter himself. Then, too, they are hurriedly made with the result that there is something wrong with the exposure, focusing and viewpoint. No attention is usually paid to the matter of lighting and most of the faces are so shaded by hats that the features are barely recognisable; or hats are removed in a glaring sun and all squint painfully, as they look straight at the camera. Moreover, the "group" is usually lined up without any regard for arrangement. As a result, many times, some one's head, foot or arm is not included in the picture. Certainly it should not be too much to expect the beginner to give some thought to these important factors in photographic success. After all, who will be the gainer and whose will be the real satisfaction of accomplishment?

As I have said so often, it is to be regretted that photography was put in the "add-water-and-serve"

CHILDHOOD DAYS — BURTON SLADE, JR.

FIRST PRIZE—BEGINNERS' COMPETITION

class of human activities. By that I mean, it is to be regretted that photography was simplified to such a point that the man on the street now assumes that there is nothing to it and that anyone can make good pictures by simply pressing the bulb. I am heartily in favor of popularising photography so that young and old may enjoy it and be benefitted by it. However, let it not be assumed that good pictures can be made without honest effort and without playing the game. It simply isn't done. Witness the thousands of really valueless prints that are made, much to the boredom of good friends who hesitate to tell the maker how poor his prints are, when compared to first-class amateur work. To be sure, it is not a welcome task to call a spade a spade, especially when it may hurt the feelings of a friend; but heroic treatment is needed to stop the tremendous waste of material and to help these same good friends get really worthwhile pictures.

Those who follow these articles, month after month, must know that my one thought is to stimulate and to help every reader to make the most of photography. By so doing he will get greater pleasure and profit from it as a hobby or business. It is for this same reason that I urge my readers, in this article, to get out of the snapshooter class. It is nothing to be proud of—this being just a snapshooter. Instead, make the effort to become an amateur photographer. This means virtually the mastery of one's camera and the ability to make good pictures under all reasonable conditions.

What interests me is that golf clubs, tennis clubs, bowling clubs and rifle clubs make a beginner toe the mark before he is allowed to compete in first-class matches. Not always so in photography. Hence, the large snapshooter class, even in some camera clubs. The tremendous emphasis placed on the simplicity of modern photography has virtually deadened the interest of those who are perfectly willing to work long and earnestly to become proficient in tennis or golf. It is human nature to desire to excel in whatever is considered somewhat difficult to do well. If snapshooters were made to realise that good photography requires just as much effort, and more, than it does to be able to play a first-class game of tennis, there would be less waste of photo-material and more good pictures in thousands of albums. Those of my readers who are earning money with their cameras know that good workmanship is required. They have found that it is a satisfaction and an asset to make good pictures. If the snapshooter will just open his eyes, look at his poor prints and resolve this coming summer to get out of the snapshooter class of tourists and vacationists and be a real amateur photographer, he will find a new photography and enjoy a heap o' satisfaction.

A. H. BEARDSLEY.

Beginners' Competition

"CHILDHOOD DAYS", this page. Very good indeed for a novice. The human interest is so marked that we forget the distracting background, to a certain extent. The poses appear unstudied and natural. The little girl's knees could be darkened somewhat to the advantage of her face. The expression of mischief on the boy's face and his posture, leave us in no doubt as to his intent.

Data: Brownie 2 A, with portrait attachment. Exposed ½ second at 2 P.M., in April, in bright light. Kodak Film; Pyro developed.

XUM

A PART OF THE PASTURE — S. HORINO

SECOND PRIZE—BEGINNERS' COMPETITION

"A Part of the Pasture", above. A creditable little landscape, with fine lighting and atmosphere. The foreground is a bit too long. Trimming it to just under the bush brings the sky-line down, thus emphasising the sky, which is too good to play second to an uninteresting bit of foreground. The cow is rather prominent, but saves the picture by breaking up a straight line which would otherwise spoil the whole.

Data: Graflex, 4 x 5, Tessar 1 c. at F/4.5. Exposed 1/80 second at 4 P.M., on E. K. Roll Film; tank developed. Iris E smooth print.

E. H. WASHBURN.

The Struggling Amateur

WE have all heard about the struggling seaman, the unsuccessful artist and the great authors who have been turned down so many times; but what about the photographer? Some photographic magazines set aside a few pages entitled "The Amateur and his Troubles"; but the question is, "Are they really his troubles?" The answer will be found in the "Negative."

It is my desire to tell the world that the saying:—"Big things (Enlargements) come hard" is true. Success is 1% Inspiration and 99% Perspiration. I received my 1% some time ago, while watching a friend developing his own films. From then on I began to struggle for my own results.

Life is filled with ups and downs; yes, so is photography. The ups are when your good pictures receive honorable mention and are hung "up" for exhibition in the Salons. These ups are few. But the downs. How many negatives have I thrown in the waste-box. I made *one* good negative once which happened to be a glass plate, so I dropped it. Yes! Photography is certainly filled with "downs". The amateur also has his smiles and frowns. Occasionally, while doing some work in my darkroom, I've had a negative develop in the required time, with plenty of detail, good contrast; and, when I had it fixed perfectly, washed and dried, I had in my possession a perfect negative representing the original scene in every detail. Did I smile? I'll say I did.

But more often we have our frowns, especially in the darkroom. There's where we find we have over or underexposed the negative or we have a beautiful picture of our friend with his head cut off or the composition is bad or the plate is fogged or the developer won't work and a hundred other disappointments.

But alas! Photography is a great hobby and we can't get along without it. We keep in good spirits for the "shadows" are confined to the darkroom in our own privacy, and the "highlights" occur frequently when we exhibit some of the good work and receive well merited praise.

ELMER P. TREVORS.

DIAPHRAGM-OPENING.—In no case should the "utilisable" opening of the diaphragm exceed the "mechanical" diameter of the lenses measured directly.

Exchange.

FILTERING GOLD-SOLUTIONS.—Solutions of gold-chloride should never be filtered through paper, because that may cause decomposition of the gold-salt. The filtering should be done through a tampon of asbestos or "spun" glass.—Exchange.

OUR CONTRIBUTING CRITICS

OLD TOWER, HAVANA E. L. HARRISON

THE PICTURE CRITICISED THIS MONTH

Whoever sends the best criticism (not over 200 words) before the last day of the current month, will receive from us a three-month subscription to PHOTO-ERA MAGAZINE.

The winning criticism, in our opinion, is the first one printed below. Criticism should be helpful and courteous.

IF the picture "Old Tower, Havana", is of the type I believe it to be, then it is a success. I say this despite that fact that some of the most fundamental rules of photography have been ignored. My theory is that the print is a travel-record. The photographer came across a very interesting belfry and, no doubt due to restricting circumstances, was compelled to tilt his camera in order to include the main object of the picture, *i.e.*, the top of the tower. Also the light is almost directly behind the camera; but no doubt making the picture was a case of now or never.

In consideration of the above assumptions, it would not be fair to give such factitious advice as the camera should not be tilted, a more diagonal lighting should be selected, the telegraph-pole and shadow are objectionable, etc.

As to the print at hand, it has many good points and its defects are of such a nature as can be readily corrected. The tones of the picture are very good and the sky is nicely rendered. The lighting is at such an angle as to give depth to the picture although broader shadows would have been an advantage.

The tilting of the camera is not very great, but, unfortunately, it is accentuated by the receding lines of the tower. This, however, can be readily overcome by enlarging with the paper-holder tilted so as to make the vertical lines parallel. A very small portion should be trimmed from the right side of the picture, just enough to remove the telegraph pole. Also the bottom of the picture should be trimmed to the top of the shadow of the pole or, better still, the shadow should be spotted out.

SAMUEL B. PRIEST.

THE picture is splendid as a record for a photographic album, the photographer knowing the immediate surroundings which will be indelibly printed on

THE STRAY CAT — RALPH F. RHODES

YOUR CRITICISM IS INVITED

his mind, should he be observant. What about anyone else, though? I myself, do not know the height of the tower nor the appearance of the immediate surroundings.

Yet, what if the photographer was not able to get farther away from his object! Well, he will then have done his best.

To photograph the tower correctly the photographer should have put more distance between the camera and subject. He should have used a camera with a rising-front, placed an object whose size is known to everyone, near the tower, included some foreground and nearby buildings. This routine would have much improved this picture and would have eliminated the tilting camera so prominent in this case.

JAMES BELL.

Old Tower, Havana

GREAT is the pow'r of suggestion
That a picture has on the thought.
Old Tower, my friend, to our notion,
The following views has brought:
When we gaze upon this photo fair,
We say, "Where are we at"?
Is it a bird's eye view or the view of a cat?
As for us, we're up in the air.
Our necks are strained and our eyes are slanted
Upward to behold the wall.
Hold your breath! It seems so canted
It must be ready to fall.
On thin air is it really resting?
We see no foundation sound;
To support the heavy belfry tow'ring
Why not some solid ground?
Terra firma never seems so sweet
As it does after pond'ring the view
We long to see the busy street
And the life of Havana, too.

ARTHUR MARBLE.

Numbering the Plateholders

NUMBERING the plateholders has been the means, on more than one occasion, of saving life or, any way, plates. If the slide, after the first exposure, happens not to be reversed and this holder is placed among several others, how is one to know which is the holder to use or which plate in the holder should be developed? As an additional safeguard all the holders should be numbered consecutively allowing two numbers to each holder and then make a practise of using them in numerical order. That is, if the holder is numbered three and four always use number three first. The numbers can also be used to identify plates for various purposes such as special treatment in the developer or when more than one kind of plate or film is carried. The numbers in ink or whatever is used will hold more permanently if a section of the varnish is first scraped.

CHARLES A. HARRIS.

Overexposed Bromide Prints

MAY be utilised by placing in a solution of alum and acid fixing-bath. In this the prints take a brown color and the strength is slowly reduced. The fixing-bath should be constantly stirred when adding the pulverised alum, in order to avoid a deleterious precipitation of sulphur.—Exchange.

OUR ILLUSTRATIONS

WILFRED A. FRENCH

A TOTAL eclipse of the sun is always an event of world-wide scientific interest; and large sums of money are spent in preparation for successful observations; astronomers and other scientists travelling thousands of miles in order to be present in the path of totality, for the purpose of photographing it in all its phases and noting the circumstances and occurrences connected with the great phenomenon. The eclipse which took place on January 24, 1925, was no exception to this rule, but on the contrary was of unusual interest to the general public, on account of its path covering a larger area of populated land in a climate where observation was simple, than any eclipse previously recorded.

Owing to this circumstance, it is probably true that a record number of photographs were made. Particularly was this true among amateur photographers and it is estimated that thousands of exposures were made by this fraternity. So that it is fitting that PHOTO-ERA MAGAZINE should publish good examples. A number were reproduced in the March issue and in the present issue several more, coupled with an extremely interesting article from the pen of Wm. S. Davis.

The frontispiece, "Approaching Totality", is a brilliant example of conditions just previous to the thrilling occurrence. A careful study reveals many interesting features, such as the regular pattern of the waves of the ocean's surface when seen from a great height, and the cloud-shadow on the water.

Data: Taken from the dirigible U.S.S. Los Angeles, one mile high, 20 miles off Montauk Point, Long Island, N.Y. a few minutes before total eclipse. Clouds over sun are three to four miles high. Small fragments of clouds casting shadow on water are one-half mile high and were penetrated by dirigible in ascent. Photograph by Watson Davis, managing editor *Science Service*, representing all press associations on eclipse flight, January 24, 1925. Also member of U.S. Naval Observatory Expedition Board, for which flight was taken. Roll-Film Ica; Carl Zeiss II B. Tessar; 1/25 second; Kodak film.

"Landscape During Totality", page 250, is of interest as showing the general appearance of the landscape in the weird twilight which existed at the time. Data in Mr. Davis's article.

The three prints by Mr. Davis are worth studying; Figure 1, page 251, being the only one with pictorial tendency. Those on page 253 are of fine technical quality, and scientific interest. Data of all three are in the article.

"The Lantern", page 254. This little flashlight shows good exposure and soft lights and shadows frequently lacking in this kind of work. The arrangement is good, making a not unpleasing pattern on the white background. The expression on the "kiddies'" faces is very cute and lends human interest.

Data: Made in Singapore, India, with Butcher Carbine camera; Aldis lens of 5.3 inches—focus, at F/6. About 30 grains of Johnson's Flash-powder was used. The film was Amalgamated Photo Manufacturers. Illingworth bromide paper.

Copies of portraits on pages 255 and 256 are good examples of photography when used as the "handmaid of art". Data in article.

"Little Adventurers", page 259, is what we designate a "record snapshot", yet the group of young pals on the raft is interesting and forms the basis of a better result by judiciously trimming away the useless material on all sides. I suggest 1⅛ inches from left; ⅝ from top; ⅜ from right and ½ from bottom. The remainder should enlarge perfectly, as the print indicates a perfect negative.

Data: 3a Kodak; F/6.3 Tessar lens, at full open; exposure 1/100 on roll film; Pyro developer. Time of year, August at 3 P.M., bright sunlight.

"The Leading Characters" and "The Hero and The Ladies", on pages 261 and 262, are singularly lifelike, and one is disappointed to discover that they are only soap-dolls. The print on page 260 shows "how it is done". Data in article.

Again we have a splendid technical set of photographs on pages 266 to 269 illustrating Mr. Pratt's article, in which the data are given.

"Old Fort, Havana", page 270, is of record value only, showing the type of buildings used in that place. No data.

The portrait "W. H. C. Pillsbury", page 273, is that of the genial and versatile president of the Boston Y. M. C. Union Camera Club. This is good pictorially, but not, to my mind, a just portrait of Mr. Pillsbury, who is so full of smiles and good nature. The stern expression about the mouth and jaw are unlike him. Possibly the camera was too low.

Data: Six seconds exposure, on Eastman D. C. Ortho plate; Voigtlander Portrait-Euryscope lens at F/5; Amidol developer; Platinum Velour enlargement from 4 x 5. Korona 4 x 5 view camera. Made in Union Camera Club Studio; artificial light.

"Bronx River, Autumn"; page 274. A very pleasing and well composed landscape with deliciously soft sunlighting. The low-placed horizon shows a varying outline and gives an opportunity for a fine sky, which has been well done. The river is hardly well enough delineated to make the title, but that is a minor matter. I wish the bits of foliage at right against the sky could be eliminated. They are too attractive, or rather distractive. I prefer less diffusion of focus.

Data: Graflex, 4 x 5, Kalosat lens at F/5.5; 5-times filter. Exposure 1/10 second in October at 4 P.M. on Agfa Chromo Isolar plate, M. Q. developer. Print on Vitava Athena C., M. Q. developed.

"Sisters", page 275. Again Mr. Saunders makes us glad with this charming little picture. The feeling of motherly care on the part of older girl and dependence of the younger are full of human appeal. The soft delineation and harmony of tone are characteristic of this artist's work. No data.

"On Guard", page 276, is one of those record pictures of unfailing interest, which we all like to enjoy. Mr. Collie-dog is happy in his job, as can be seen by his broad smile of satisfaction. He is proud to be on guard. "Don't you think baby and I are about the best ever?" he seems to say. The background at top is rather spotty but the lights and darks in the central figures compel attention. No data.

"Where Cattle Stand", page 277. The general composition is so good and subject so attractive, that we regret a more harmonious and truthful print has not been made. Less contrast would bring out all the

XUM

qualities desirable in this, and add immeasurably to its poetic quality, making it more truly in keeping with the delightful verses.

Data: Seneca View 8 x 10; Convertible Symmetrical of 12½ inches focus; F/16, 1/25 second; Cramer Inst. Iso; very bright light in July at 11 A.M.; Elon-Hydro developer. Contact print from part of 8 x 10 negative, on Artura non-curling paper.

"Magellans of Today", page 278. Were it not for the unusual strength of the second prize picture, this would be a hard competitor for prize honors. It is extremely well spaced and the lights and darks are well handled. Although a fine picture in all respects it lacks the quality of originality so necessary to capture a major award. Technically, it is an achievement, being made with a telephoto lens on hand camera. If anybody thinks it is easy, let him try.

Data: April 3 P.M.; bright light; 4 x 5 Telescopic Graflex, Plaubel Tele-Peconar lens at 5 magnifications, giving an equivalent focus of 25 inches. Exposure 1/850 second at F/15 on Eastman Superspeed Film; pyro-soda. Print on Vitava Rapid Black J.

E. H. WASHBURN.

A Pocket-Camera I Recommend—Especially to the Novice

As an amateur, I have been fairly active in the pursuit of photography for over twenty years, and have owned during that period, several kinds of cameras. Of late years, however, I have found it rather difficult to give camera-work as much attention as I would like—partly owing to lack of spare time, on account of other business; and, what was perhaps more important, I also found that I lacked inclination to "lug" around a camera and fittings weighing over twenty pounds, particularly when the temperature here in Australia soars up towards a hundred.

Therefore, some time back, I looked about for a compact hand-camera, very light in weight and small in bulk. The instrument had to be large enough to produce a print suitable for halftone-reproduction without enlargement; but the negatives would have to be of good enough quality to permit enlargement, if I so desired.

None of the plate-cameras on the market furnished what I needed. I am somewhat of a "plate-waster", and like to be able to make as many exposures as I feel inclined on any subject; for the reason that frequently, after I have obtained what I consider the best point of view, a quick change of the figures—if it is a group—will perhaps give a very much better rendering of the subject. And, for this to happen just when I have exposed my very first plate, is somewhat exasperating, to say the least of it.

There are very, very few hand-cameras with which one can make more than twelve exposures in a day without refilling, and, really, twelve is not very many to make, if one has a quick eye for suitable subjects.

I had done a bit of work with films several years ago, but was not altogether satisfied with the results I then obtained. They were not so fast as plates, and I found the latter more dependable. Yet, as far as I could see, nothing but a film-camera would do all that I wanted.

Eventually I decided on the No. 3 A Folding Pocket Kodak which you probably know is postcard size—3¼ x 5½ inches—an ideal shape for most subjects. I found that in its leather-case, filled with a ten-exposure film, it weighed only three pounds, and that I could easily carry another three rolls in my coat-pocket, and thus have forty exposures available should I feel inclined to be very extravagant.

The first thing that I did was to spend some time gaining a thorough knowledge of the instrument. Removing the back, I cut a piece of groundglass to size and was able to check the focusing-scale, which I found absolutely correct. I experimented, too, with the rising-and-falling front and the shutter at its various speeds 'till I felt that I was as familiar with the "new baby", as with the older ones.

I might remark, in passing, that the cleverly-written and illustrated booklet which accompanied the camera covered every point that a novice could possibly need, and if followed with care it would be next to impossible for anyone to make a mistake in using the camera.

Then, I filled the camera with a ten-exposure spool and started out to give the camera and film a thoroughly practical test in some cases, on very difficult subjects.

I found the Kodak N. C. film to be absolutely dependable, very rapid—faster than most extra-rapid plates; quite free of halation—that bug-bear of plate-workers—and giving beautifully graded negatives without the least thought in development, except to put the exposed film in the Kodak Tank and leave it in the weak developer recommended, for twenty minutes. And you know, the development can be done at any time, anywhere—day or night. Then, too, this film is isochromatic and naturally gives a much-improved rendering of all subjects which contain color. Can one, therefore, imagine anything more convenient or satisfactory?

In conclusion, I can recommend this pocket-camera highly to anyone—especially the novice—for as I said before, by following the simple instructions enclosed with the camera, carefully and well, he cannot possibly go wrong, and will, I'm sure, at the same time, be more than satisfied with the results obtained in the photograph, whatever the subject may be.

PERCY B. PRYOR.

How to Make Enlarging-Trays

To those who did not get the enlarging-trays so much desired at Christmas time, the following method may appeal, as it did to me:

Take a piece of beaver-board, or other unfinished wall-board, about three inches larger each way than it is desired the tray shall be. Rub well with paraffin wax and then pass over it a flat-iron hot enough to melt the wax. This makes the board non-absorbent. Now take some pieces of inch-square pine or other soft wood and treat in like manner. Nail the strips around the edges of the board. Close the joints with wax and a hot soldering copper.

You now have a tray that will answer every purpose for developing or fixing, but inasmuch as it will not stand boiling water, it is well to put some marking on each to indicate its use and use it for that purpose only. Painting or staining the outside of the wood before putting on the wax is a good method, using a different color for trays to be employed for different purposes.

F. A. CROCKETT.

Artificial Light

"You say it's all off between Jack and his new girl? Why, he told me she was the light of his life."

"I guess he must have meant a flashlight."

Exchange.

ON THE GROUNDGLASS

WILFRED A. FRENCH

Dust-free Cameras

It is remarkable how few cameras in use by amateurs are free of dust. When someone hands me a camera, for examination, as the alleged cause of defective pictures, I always look for the presence of dust, and usually find it. It is rare, indeed, that the front-surface of the lens is not covered with a layer of dust. If a considerable quantity has settled there, or perhaps on the rear-surface, it is enough to obscure the photographic image and cause dim or foggy pictures. Yes; the guilty camerist had read Photo-Era's oft-repeated recommendations to give his camera a good spring-cleaning when taking it from the shelf where it has lain during the winter-months. After that, he was care-free, but the camera did not remain dust-free. To be sure, most camerists carry their cameras of the pocket-type in sole leather-cases for protection; but when in actual use, the camera is carried by the handle, in the open, particularly in city-streets where all manner of dust is flying about. The lens being unprotected, it will collect some of this dust, which will also find its way, somehow, into the interior of the camera.

Investigating the matter a little further, I discovered that it is possible for dust to reach the camera through the carrying-case if it does not shut tightly. One day, last summer, I examined the pocket-camera of a caller from the West, who told me that, when traveling, he always kept his camera, ready for immediate use, on the seat beside him, or hanging from a hook above his head. To our mutual astonishment, we discovered that coal-dust had settled on the lens and had also found its way into the interior of the camera. The empty camera-case, which had been lying in the rack, overhead, contained dust and cinders. After a little reflection, I suggested that camera-case be supplemented by a thin, close-fitting suède-cover, easily made by a tailor, if not by a member of the family. This would afford ample protection to the camera while carried in the pocket. At the proper moment, this suède-cover can be quickly slipped off, put back in the pocket, without bulging it. When needed, it can be easily slipped on again, and the camera replaced in its leather case. Several months later, the camerist in question wrote me from his western home that the suède cover had been made—he neglected to state by whom—and had created a sensation among the members of his camera-club to whom he had shown it. It is probable that this thin, neat, soft, attractive-looking camera-cover, fashioned by loving hands, served as a welcome Christmas-gift bestowed upon certain camerists on the Pacific Coast.

A commercial article approximating the home-made suède-cover is marketed by the Ica people. It is made of similar material, of an agreeable, light color, and closes tightly. The opening resembles a lady's hand-bag—having two metal rims at the top. It is closed by means of two small metal-balls that are snapped together. It looks like a dust-proof device, but, like the suède-cover, offers little protection to the camera if it should be dropped on hard ground or receive a hard blow. The commercial case or cover is made only for pocket-cameras.

Postal Cards and Postcards

A long time ago, deeming this term "Postal Card" a little awkward, and thinking that I could improve upon it, I coined the word "postcard." Other persons undoubtedly had the same thought, for the use of this simplified word became general. So I applied the term indiscriminately to the government "Postal Card," to the private mailing-card and to the picture-postcard. Now, however—and since the private "postcard" and the picture-postcard are regarded by the government as first-class mail-matter, the same as a sealed letter—we all are obliged to discriminate in our designations, and to call the regular government one-cent card by its official name, "Postal Card", and the others (souvenir-cards privately printed) "Postcards." The latter require two cents postage, whereas the government Postal Card has its regular postage, one cent, already printed thereon. If, however, "the plain printed cards do not bear the words Post Card or Private Mailing-Card and do not conform to the required size, *viz.*, 3 9/16 by 5 9/16, and contain no writing other than the address, they may be mailed for 1½ cents instead of the new two-cent rate which applies to private mailing-cards and post cards." If sent abroad, the Postcard requires no additional postage, whereas the government (one-cent) Postal Card requires the addition of a one-cent stamp, as heretofore. The Editors of Photo-Era will be careful, from now on, to distinguish properly between Postal Cards and Postcards. Inasmuch, as the Post Office Department does not seem to recognise the single word, postcard, or even the compound word, post-card, and prefers the term "Post Card," the Editors and, doubtless, many other patriotic and native-born Americans will continue to use the simplified and logical spelling, *viz.* postcard.

Those Punsters

When at St. Augustine, last February, and standing in front of the Ponce de Leon Hotel, I noticed a couple of tourists making snapshots of the magnificent structure. Said one to the other, "Here's a fine shot of the Ponce (the short for Ponce de Leon)!" "Ponce?", remarked the other. "What do you mean by Ponce?" "Why," came the quick reply, Ponce is the short for Pension, or boarding-house."

Help!

The following advertising-gem appeared in a recent issue of a Boston suburban weekly, whose editor did not take the trouble to help the advertiser in writing the copy:

"Invalid wants to loan wheel-chair. Unable to buy one. Address No. 12248, Record Office."

THE CRUCIBLE

A MONTHLY DIGEST OF PHOTO-TECHNICAL FACTS

Edited by A. H. BEARDSLEY

Local Intensification

NEGATIVE-REDUCTION by means of the ferricyanide-hypo or cyanide-iodine solution applied locally with a camel-hair mop or tuft of cotton has long been a commonplace of everyday practice, but comparatively few workers resort to local intensification, which in its way is quite as useful. The reason for this, continues *The British Journal*, is probably that nine people out of ten use one or other of the two-step processes, such as mercury and ammonia or chromium, when it is, of course, impossible to judge of the degree of density which will be obtained until it is too late. With a one-step method, such as the use of a mercuric iodide solution, local intensification becomes quite easy. The procedure is exactly the same as for reduction; the increase of density is visible all the time, so that it can be stopped at any stage. There is no risk of staining, even if a trace of hypo is left in the film; but fixing must, of course, be thorough. The surface-color of the image is changed to a creamy color where it has been treated, but this is not visible upon looking through the negative.

Development-Fog

To a correspondent who complained of foggy negatives when tank-development was used, *La Photo. pour Tous* replied as follows: "It matters little whether the negatives are good if the prints are satisfactory. Relative failure is inevitable, for the plates always have a latent fog due to various causes, which will readily appear when any plate, no matter what its make, is developed without having been exposed, or when any negative is developed over long. The use of a dark-room-light not entirely free of actinic rays accentuates this fog. To these causes is added underexposure, the fog it produces being often colored. We do not think it is sufficient to modify the mode of development to enable one to escape the various influences which we have just explained. It is especially necessary to avoid fogging in the darkroom, either when filling the plate-holders or when developing, and to use a developer possessing sufficient activity to give a satisfactory negative in a normal length of time, in order to avoid under-exposure fog."

Slight Reduction of Bromide Prints

FOR foggy bromide prints the ordinary reducers for plates are not suitable, as they work too intensively and are apt to injure the halftones. For that reason recourse may be had to one of the following methods:

1. Mix equal parts of solutions of copper-sulphate and sodium-hyposulphite, 1 to 500, and immerse the print in this until the fog disappears.

2. Add to 600 cc. of a concentrated solution of sodium-hyposulphite 6 cc. of potassium iodide and bathe the prints in it.

3. Take about a 3 per-cent. solution of iron-chloride and lay the prints in this, stirring them constantly. A slow, regular and easily-controlled reduction takes place. Wash prints well after reducing. *Camera, Zurich.*

New Periscope Device for Foiling Bank Robbers

A NEW weapon has been placed in the hands of the forces of law and order in the fight against crime and criminals.

Although developed, like the tear-bomb, in the World War, the new weapon is devoted to defensive rather than offensive warfare. It is a periscope by means of which policemen or other observers may obtain from the sidewalk a comprehensive view of vaults which are situated beneath the street-level.

The new device has just been installed in the new bank-building of the Portland, Me., Savings-Bank by its inventor, Walter G. Wolfe, of 7 Crystal Street, Greenwood. Mr. Wolfe already possesses a dozen optical patents and is considered one of the pioneer experimenters in research-work among prominent oculists of the country. He is secretary of the Pinkham & Smith Company, prescription oculists of Boston.

The periscope is the last word in bank protection, and fills a long-felt want, for while the offices of banks are always well illuminated, and in full view, the vital spots, the vaults, are invariably out of sight.

By means of the new device, a view is obtained by looking through a peephole in a bronze plate set in the masonry, and an optical system, consisting of prisms and lenses, extending downward and turning numerous corners, reveals the whole of the front doors of the safety-vault. As a result, no one can approach the vault-doors unobserved, and, should the light be extinguished, an investigation would be made.

White Spots on Developed Prints

IF neither air-bubbles nor grease is the cause of such spots, they are perhaps produced by tiny particles of metal that are nearly always to be found in the center of the spots. They can be readily recognised if the paper is embedded in paraffine and a fine cut made with a microtome, permitting examination with a microscope. They will be found by chemical reaction to be copper. The formation of the spot must be caused by electro-chemical reaction in the moist emulsion which leads to a partial deposit of the copper by the separate silver and the formation of bromide of copper. Experiments based on this point of view have shown that spots may actually be formed in this way and it is very probable that small particles of copper get into the raw paper when passing between the bronze cylinders of the calendering machine.

Camera, (Switz.).

Warm Purple Tones on Developing-Papers

AN exchange recommends, after bleaching in any of the ordinary bleachers, redeveloping in a pyro-developer made up as follows: Water 500 cc., sodium-sulphite 30 grammes, potassium metabisulphite 1 gramme, pyro 3 grammes, potassium carbonate (dry) 15 grammes.

XUM

THE STEREOPHOTOGRAPHER

Stereo-Autochromes

AUTOCHROME stereos may be easily made on two small plates, eliminating the loss from breaking or scratching when cutting, and because smaller plates may be used, the cost may be reduced. The writer uses a 5 x 7 camera and a home-made kit to hold two 2¼ x 3¼ plates.

Take a piece of the heavy pressboard from the inside of a 5 x 7 Kodak film-pack and a piece of the thinner pressboard from the back. In the heavy piece cut two openings large enough for a 2¼ x 3¼ plate to fit easily, but not loosely. These holes should have the short sides parallel to the long side of the kit and their centers equally distant from the center of the kit. The distance between centers of the holes should be equal to the separation of the lenses, center to center.

Cut the thin piece about one-half inch shorter than the thick piece and mount the thin one on the thick, so that it centers. Mounting in a dry-mounting press is an excellent method; but glue should work equally well if the kit is kept under pressure for a day or two. Next, cut openings through the thin piece, leaving about an eighth-inch margin all around; that is, for a 2¼ x 3¼ plate the opening would be 2 x 3 inches. Fill the kits with the thin side out. The writer has had no trouble with the plates falling out, although no fasteners are used.

EMMETT K. EMSLIE.

On Viewing Stereo-Positives

How many of you are able to view a stereoscopic slide without a stereoscope and yet obtain the illusion of depth and proper perspective? I believe this trick of the eyes can be mastered by anyone, whose eyes are even nearly equal in viewing-power. It is a matter of concentration, chiefly, and insistence upon seeing what doesn't exist.

It is hard to explain just how to go about it; but I believe the following will do: Hold a slide about six inches in front of the eyes and gaze at it intently. Slowly move it away from the eyes and you will notice instead of one dark mass, two such masses, representing the two pictures of the slide. Continue moving it away from the eyes, all the time gazing intently, in a sort of cross-eyed manner, such as one must contrive to look at anything very close to the eyes. At this time, there should be visible not two but *three* squares of black. The third square or the middle square, is of course an illusion, and not really existing; but is evidence that the eyes are about to see stereoscopically without a stereoscope. As the slide is moved still further, slowly, the blurred masses in the center square, should become sharp and take on natural appearance. Now the gaze must be concentrated on the center view even more intently, and as the slide is slowly moved back, the stereoscopic illusion should become noticeable. If not at first, after the detail is sharp and plainly recognisable, the slide should be moved slowly back and forth, over a short distance, say a half inch, until the stereoscopic relief is apparent. Then the slide can be viewed for some time without eye-strain, as long as the gaze is still concentrated on the center square. To let the eyes wander to one of the end squares will destroy the illusion and require more concentration, in order to see stereoscopically again.

Of the various sizes, I can see the 6 x 13 cm. easiest. That is because the 6 x 13 size is most natural for the human eye. I am able to see it at a distance of about 10 inches, while with the 45 x 107 mm. I have to hold the slide fifteen inches away. With the American standard size, 3½ x 7 inches, there is considerable eye-strain, and I have to hold it over two feet away, which distance overbalances the advantage that might be derived from viewing the larger print.

This trick—which is only a trick and never of real practical value—will hardly cause manufacturers of stereoscopes to cease their production, for the prints appear relatively small and unsatisfactory and the eye-strain is not pleasing. But for a casual inspection of a few slides, when no one has a stereoscope handy, the trick will be well worth mastering.

CHARLES FRANCIS HAMILTON.

Simple Adapters for Stereoscopic Transparencies

SHOULD an enthusiast in stereo-photography, equipped with a medium size outfit, acquire, by exchange or otherwise, stereo-views of smaller sizes, it is a simple matter to construct adapters with which the smaller may be enjoyed along with the larger views within the same stereoscope.

Stereoscopic transparencies of the 4.5 x 10.7 mm., the 6 x 13 cm. and the 9 x 14 cm. have been successfully exhibited within a stereoscope designed for the latter size with no adjustments other than simple cardboard adapters of the following description:

On a 9 x 14 cm. piece of stout but not thick paper—heavyweight cover stock—cut out a carefully centered opening slightly less than the size of the smaller stereo. For 6 x 13 cm. views this opening will approximate 5.2 x 12.5 cm.; the 4.5 x 10.7 mm. will require an opening 3.8 x 9.8 cm. or if preferred, two openings 3.8 x 4 cm. with 1.8 cm. space between.

A 9 x 14 cm. piece of cardboard no thicker than the unbound stereo-transparency must then be cut with a carefully centered opening sufficiently large to accommodate the stereo without forcing same into the opening. In adapting the 6 x 13 cm. stereo to the 9 x 14 cm. size, a very narrow strip of cardboard is left on the extreme ends; however, this is quite sufficient since it will later be strengthened in binding to a cover-glass. Paste the cut out cover paper and cardboard together. Lay the small, unbound stereoscopic transparency into its cardboard opening with film side up and upon it lay a clean 9 x 14 cm. cover-glass. Bind with lantern-slide binder and you have uniform stereoscopic transparencies no thicker than ordinary lantern-slides which, though the actual views may vary greatly, will work uniformly in the same stereoscope.

F. L. GOLL.

XUM

THE AMATEUR KINEMATOGRAPHER

HERBERT C. McKAY

The Amateur Kinematographer

I HAVE just received a letter from Mr. Walter D. Kerst of Jersey City. Mr' Kerst has had an iris fitted to his camera as well as a mask-box. He inquires concerning the use of the graduated filter with the kiné camera.

It should be borne in mind that the motion-picture is but a refined still-picture. Almost all of those elements which go to make a beautiful still-picture can be utilised in making a beautiful motion-picture.

In landscape-work it is recognised that clouds, perhaps more than any other single detail, are important from a standpoint of beauty. To obtain clouds it is almost imperative that a screen be used. The solid yellow screen may be used, of course; but not as satisfactorily as the graduated screen. The film used in motion work has to embrace so many different qualities that any great degree of orthochromatism is impossible. Of course, it has certain orthochromatic qualities, approximately those of ordinary roll-film; but not those of especially sensitised orthochromatic plates. Thus a solid filter necessitates a considerable increase in exposure. It is known to still-photographers, that orthochromatism enters into consideration to a lesser degree in the use of the sky-filter than in the use of any other color-screen. The action of the sky-portion is more one of restraint than of selection. It is known that clouds will usually register if a sufficiently short exposure is given; but that this exposure is hopelessly short for the ground portion. The graduated filter is virtually clear glass at the bottom, allowing all rays from near objects to pass. At the top the deep yellow restrains the sky light and allows the clouds to register, at the same time the color holds back the blue rays and utilises to the fullest extent the orthochromatic qualities which exist in the film. Thus the graduated screen, lying just upon the borderline of true orthochromatism, is entirely practical for use with the small cameras and should result in some very beautiful effects in landscape-work.

Remember that in using such a filter a near object which rises well into the sky will be affected by the filter. If you cannot keep the foreground objects well within the lower two thirds of the frame, do not use the graduated filter. If you wish to obtain cloud-effects in such a case, use the solid filter, increase exposure and obtain them by purely orthochromatic means.

To those who like to devise their own equipment, I should suggest following Mr. Kerst's example. Mount an iris and mask-box. You will be amply repaid for your trouble. I believe that it will be found to be entirely practical to mount the professional Goerz effects by designing a support which will be in turn supported by the tripod rather than by the camera-body. This will allow you to obtain all of the filter and iris-effects; and with care, double exposures may be tried out.

In making double exposures, open the camera in a dark-room and with a razor blade cut a tiny notch in the film just at the top of the gate or other readily identified index point. Then expose the desired portion of the film. Return to the dark-room, remove the film from the camera and wind it back upon the original spool, taking precautions not to touch the emulsion-side of the film. Thread up and run the film through the camera until the notch comes to the index point then go out and expose the second portion of the film.

Do not try to work to a fine division line. Use exterior masks with finely serrated or fluffed cotton-edges. Double rôle work should not be attempted; but visions and similar work is quite feasible. The reason for this is that these cameras are not built for such work and the registration is not as delicate as in professional instruments. In delicate work, even with such a camera as the Bell & Howell professional model, the usual focusing-aperture is not used; but a supplementary focusing-screen is placed in the actual film-aperture. This is done because of the delicacy of the interior masks used and the necessity for critical registration.

There is no reason that a patient and careful kinematographer should not use the full line of Scheibe filters on his small camera. Try it out and tell us all about your trials and successes.

How have you arranged your projector? With a little work you can make a very good daylight-apparatus which will give full satisfaction without having to darken the room.

The first thing to do is to obtain a translucent screen, such as the translux. This screen may be as small as 18 x 24 and still give perfect satisfaction for the usual home circle. Such a picture would be a failure when projected in the usual manner; but with the projector behind the screen and the screen comparatively close to the spectators, the 18 x 24 will prove adequate. Just consider that this is two inches larger on one side and four inches on the other than the standard 16 x 20 photograph.

A lens of fairly short-focus is used, and the screen set as close as possible to the projector. It will usually be found to be practical to set the screen as close as three feet to the projector.

A square funnel is now built about four feet long. This funnel shall be of such proportions that when the screen is at the proper distance from the lens of the projector, the screen will set back in the funnel some eight or ten inches, and the small opening of the funnel will be directly in front of the lens. This funnel is painted dead-black inside and the portion of the funnel which projects in front of the screen should be covered with dead-black felt or velvet. This makes a shadow-box, which cuts off disturbing reflections.

If the assembled screen and funnel is now set before the projector and the lens accurately focused by means of a mirror set in front of the screen, it will be possible to project pictures with great clarity in the diffused light of the ordinary living-room.

. . . . . .

The sixteen-millimeter projector has been placed in some schools; but the great difficulty at present lies in the fact that there is not available any choice of library-film suitable for such purposes. This is indeed a fertile field for the owner of a sub-standard camera, especially those who have had some training in pedagogy.

It is commonly said that in stereophotography the two halves must be sharply defined and of equal exposure. Practice has shown that a wide difference in exposure, definition or even tone is often of great advantage in giving us an unusual and attractive stereogram. Applying the same principle to motion work, we recall that needle-sharp definition and correct exposure are the law. I believe, however, that as your films do not have to pass the examination of the general public who are not versed in modern photography, you will find pleasure and education in applying some of the principles of pictorial photography to your work. I should like to see some extreme soft-focus, some high key and low key work, and other effects which have been used in extreme modification in professional work. I believe that some out-and-out impressionistic work will be appreciated by the pictorial worker. Always remember that your motion-camera is a camera with a magnificent lens-equipment. You can do anything with it which can be done with any still-camera, always excepting manipulation of the developed negative and print. Are you a disciple of Misonne? Try some of his wonderful lightings with the motion-camera. Such a film correctly made should record a bit of fairyland.

Queries

Is the Fixed-Focus Lens practical in Motion-Cameras?

A. It is well known that the fixed-focus lens does not exist; but a compromise is made and so called. This is, in reality, a lens of such small aperture that the circle of confusion is at no place large enough to cause distinct blurring in a contact print. In hand-cameras the extreme aperture for the fixed-focus lens is regarded as being F/11. The 16 m/m cameras which use a lens of approximately one-inch focus can be fitted with a fixed lens because of the great depth of focus attendant upon the short focus. Also, as the usual projected image is seldom larger than 24 x 36 the enlargement is not enough to make the confusion apparent. The fixed-focus lens is practical; but the focusing-lens is always to be preferred by serious workers. This fact is recognised by one of the largest manufacturers who makes the fixed focus the standard but furnishes a focusing-mount, if desired. The fixed-focus lens is more nearly fool-proof. The owner sacrifices critical definition for the assurance of always getting passable film.

Can the 16 m/m Film be used in News-Work?

The sub-standard camera is not advisable for news-work, for news-work presupposes timely interest. However, if you obtain a bit of film which is very unusual and which is not of timely interest; that is, review-film rather than news-film, correspondence with a review-publisher may indicate that the value is sufficient to warrant enlargement to standard gauge. It must be remembered that almost any standard film may be reduced to sub-standard without difficulty, but for enlarging-purposes the sub-standard film must be perfect. If you intend to do news and review-work, purchase a standard-gauge camera.

They were looking down into the depths of the Grand Canon.

"Do you know," asked the guide, "that it took millions and millions of years for this great abyss to be carved out?"

"Well, well!" ejaculated the practical photographer. "I never knew this was a Government-job."—Exchange.

COMING EXHIBITIONS

April 12 to June 1, 1925. Combined Indiana Pictorial Photography Salon. The Fort Wayne Art School and Museum, 1026 West Berry Street, Fort Wayne, Ind. Last day for receiving prints April 8. Karl S. Bolander, Director.

May 10, 1925. V Salon International de Fotografia de Madrid. Last day for receiving prints May 10, 1925. Further information may be obtained from Secretario del Salon International de Fotografia, Real Sociedad Fotografia, Principe 16, Madrid, Spain.

May 15 to June 15, 1925. Second International Salon of the Pictorial Photographers of America to be held at the Galleries of the Art Center, 65 East 56th Street, New York City. Last day for receiving prints, April 18. Address all communications to John H. Kiem, Chairman Exhibition Committee, Art Center, 65 East 56th Street, New York City.

September 14 to Saturday, October 24, 1925. Seventieth Annual Exhibition of the Royal Photographic Society of Great Britain, 35 Russell Square, London W.C. 1, England. Last day for receiving prints Friday, August 14. We have entry-forms and shall be glad to mail them as long as they last, to any readers who will send two cents in stamps for postage.

A Splendid Example to be Followed

In appreciation of the splendid work of Dr. George E. Blackham and George A. H. Eggers in compiling two albums of photographs of historical Dunkirk, views and portraits of men prominent in the history of the city, the Chamber of Commerce tendered them a luncheon. There were some seventy-five persons present and both men were given ovations.

For the last two years, these men, both residents of Dunkirk for many years, were engaged in compiling these photographs and mounting them in album-form. The albums were formally turned over to the Chamber of Commerce and will form a part of what promises to be a most interesting collection. The albums will be kept in the Chamber's headquarters where they may be viewed at any time.

There are two hundred photographs of Dunkirk scenes and at least seventy-five portraits of men who have been prominent in life of the city many years ago. Photographs of some of the old buildings and landmarks were not available and pictures of these were drawn from memory by Mr. Eggers.

The handsome polished wood-cases to hold the albums are the work of the vocational class of the Dunkirk High School, and Edgar R. Boniface of Boniface's art-shop is responsible for the handsome lettering on the albums.

Dr. Blackham for years has been an enthusiastic amateur photographer and photographed hundreds of scenes in and around Dunkirk. With the assistance of Mr. Eggers, the important negatives were selected and printed, Mr. Eggers also supplementing this with his excellent pen-drawings.

Dunkirk (N.Y.) Evening Observer.

[It is with pleasure that we print this reference to Dr. George E. Blackham who has long been one of our subscribers and friends. Editor.]

(Courtesy Fairchild Aerial Surveys, Ltd.)

COMMERCIAL AIR-STATION — FRANK H. WILDUNG

Commercial Aërial Photography and Preparedness

HAVING read the articles in PHOTO-ERA MAGAZINE devoted to the Military Photographer, I thought that I would write a few lines for this department. Not being in the military service, at present, I hope that you service men will excuse my intrusion in this department. At the beginning of the World War, before we were mixed up in it, I was stationed in the Hawaiian Islands at Fort Kamehameha, a Coast Artillery Post.

As it happened I was walking number one post in front of the guard-house—this post also being the entrance to the garrison. I noticed a foreigner coming near the post. Upon asking him where he was going, and being told that he was going over to see the Major's cook (who also happened to be a foreigner), I was about to let him pass when I noticed a little black case under his arm. Having been a photographer nearly all my life, I called the Sergeant of the guard and told him that this man was carrying a camera for no good purpose. Of course the Sergeant thought that I was mistaken; but I insisted that this foreigner be taken to the Officer of Day. Upon his arrival, it was found that he had two rolls of film in his pockets and one in the camera partly exposed. We relieved him of his camera and film; and, upon development of the films, we found that he had made pictures of the other two coast-defences on the island. Of course, these pictures would have been very nice to turn over to the foreigner's War Department.

It seems as though I am getting off my track, as my point in writing this letter was to show you a few prints made from planes in northern Quebec for commercial purposes. Print number one shows a commercial air-station in a wooded section of the country. Is there anything the camera has not seen? Notice the letters on the tops of the planes and the runway under the water. All of the buildings under the trees are in deep shadows, yet the camera has seen them all.

Print number two shows rather open country. This print will be placed upside down in the magazine in order to illustrate to you what Major Mark Brooke, U.S.A., told about in the interpretation of aërial photographs made vertically. Notice how all of the contours change their positions when they are incorrectly looked at. All shadows should be toward observer.

(Courtesy Fairchild Aërial Surveys, Ltd.)

OPEN COUNTRY—ALTITUDE 9000 FEET — FRANK H. WILDUNG

Print number three shows country of similar type photographed in the winter. You certainly can pick up contours and detail in this print. Notice the fence-line running through the snow and you will have some idea as to what can be seen in a vertical aërial photograph.

My first reference to the foreigner and his camera shows just one use of the camera and my second shows what we are doing in commercial aërial photography, and what a help it would be to our country in time of war. If all the men in commercial photography would note the possibilities of their own line for military purposes, what a tremendous help it would be to adequate National Defense.

I would like to hear from men interested in Military Photographic work, as the old saying goes "Once a soldier always a soldier"; and you will always find me

XUM

(*Courtesy Fairchild Aerial Surveys, Ltd.*)

OPEN COUNTRY IN WINTER — FRANK H. WILDUNG

ready to give any information that I can to men interested in this work.

FRANK H. WILDUNG,
Ex-First Sergeant, A.E.F.

Lieut-Comdr. Karl F. Smith Joins Us

IN a very cordial, helpful letter received from Lieut-Comdr. Karl F. Smith, U.S.N., Photographic Officer, Aircraft Squadrons, Battle Fleet, he offers his co-operation in promoting interest in military photography. He has promised some interesting material for this department and I am sure that it is a pleasure to have the U.S. Navy so ably represented in our pages. We are all working for the cause of National Defense and reasonable preparedness, whether it be the U.S. Army or the U.S. Navy. This common purpose, and our loyalty to our country, makes us, after all, one service—afloat or ashore.

What of the Future?

IN following the recent changes to the Organised Reserves of the U.S. Army, it has been a source of deep satisfaction to me to witness the quiet patriotism, increasing strength, enthusiasm and efficiency with which this third, and largest, component of our army is taking its important place in National Defense. It is truly a citizen army, costing comparatively little to maintain; but constituting a tremendously powerful argument for law, order and international peace. The type of men who are becoming commissioned officers or enlisting in the ranks of the Organised Reserves mean business. They believe that a country which gives them the right to the pursuit of happiness also has the right to expect protection in time of need. Our many sad experiences in the past have convinced these men that the most brave and ardent patriot is of no military value in modern warfare unless he is a trained man. Hence, the officers and men of the Organised Reserves, believe that as American citizens they should learn enough about military preparedness to be able to stand by when the country needs trained troops to meet a trained enemy. Be it remembered that the bubble of "a million men springing to arms over night" was burst with terrible consequences, and not very many years ago. It simply cannot be done today, when an army is composed, in great part, of scientifically trained specialists.

As I have been writing these lines the thought came to me, what of the future? Today this third component of the U.S. Army is getting its feet under it. For the next few years it will grow in strength and influence. It will win the confidence and respect of all true American citizens. But many of us enthusiastic, willing and fit *now* must succumb eventually to the demands of the years and who then will carry on? If we do our duty now, as citizens and as soldiers, our ranks will never grow thinner; but, instead, they will increase in number and there will be young, fresh, physical and mental reinforcements without limit. How is this to be done? By standing behind the Citizens Military Training Camps and the Reserve Officers Training Corps and by encouraging qualified enlisted personnel to make the most of their opportunities to advance. Our aim should be to so organise and support our sources of replacement that each year our "casualties" would be more than made up, and thus our strength, enthusiasm and efficiency be maintained far into the future.

"Nothing much to do with Military Photography" the reader may say. Very true. But before we can have trained military photographers we must have the men who are willing to step forward and be trained. Do you happen to be one of them?

LONDON LETTER

CARINE AND WILL CADBY

THE film, already well known over here as the "Epic of Everest" will, we imagine, be shown in the States about now. It is different from most films in that it is the official record of a remarkable journey, *viz:* the third attempt to reach the highest peak on earth; and although a slight story has been introduced it simply suggests the daily adventures and toil of the intrepid explorers.

We believe that the Lhamas who specially came to England to give a demonstration at the beginning of the film of their secular music and dancing, are to accompany the entertainment to America. In an admirable setting, with a superb, and presumably typical view of Tibet as a background, they in no small degree atune the mind of the Westerner to the strange and sacred character of the Valley of the Rongbrek, where the Tibetans have built higher than the loftiest mountain of the Western world, a monastery in which they worship gods that "dwell in the tops of all the snows".

But to the keen photographer all this is but trimming to the actual pictures of Mount Everest, to the marvelous views of snow and ice, splintered, torn and twisted in one place into a fairyland of bergs, some of which were one hundred and fifty feet in height, where the air was so rarified and unprotective that the travelers were in danger of being frozen in the shade while sunstroke was a real danger in the sun. And it was in this particular locality that the most pictorial results were obtained. One forgot that one was sitting in the prosaic Scala Theatre in dingy London, as the screen showed a glittering avenue of huge pinnacles through which the tiny figures of the expedition picked their way; up, up, up and out of the scene at the top of the eerie landscape. The views made comparatively near the top of the mountain are very fine, and many show the rapid formation and movement of clouds around the peaks.

Altogether it is a show that no photographer should miss and the results are far superior to those obtained on the earlier expeditions, and Capt. J. B. Noel F.R.G.S. who is responsible for the films is to be heartily congratulated. He has had much photographic experience in Tibet, for during exploration and photographic work during the years 1911–13, he succeeded in getting within forty miles of Mount Everest, but was then discovered and turned back by the Lhamas, and on his return to England he addressed a joint meeting of the Royal Geographical Society and the Alpine Club, suggesting an organised attempt to conquer the world's highest mountain. The expeditions of 1921–22 were the outcome, and this last attempt shows how immensely he has profited photographically by these earlier experiences.

Rumors of a great snow shortage in Switzerland decided us to forego our change this year, for what is the good of winter subjects without snow?—But towards the end of February, when the season is supposed to be waning, weather-conditions improved, snow fell, and we heard Switzerland was looking like fairyland. This determined us to come, and up to now we are finding our late season experiment a success. Its advantage so far as photography is concerned consists in the longer daylight. We can now make satisfactory exposures after tea, and in the morning the sun being higher, dodges the dominant peak, and so appears much earlier. And it is just these early morning and late afternoon effects that are the most attractive. We had expected to find the hotels empty, but the uninterrupted sunshine of this most erratic season has kept the guests, and we are by no means the only occupants of the hotel darkroom. Sometimes, indeed, we have to proceed very warily, for we find it festooned with yards of wet film. Quite a number of amateurs have brought out kinematograph cameras and have been reeling off films of different sports. We even discovered a party of enthusiastic skiers who had got themselves kinematographed by one of their number simply to discover their faults of attitude and movement, so as to be able to correct them. This is a case where photography is a chastener and vanity destroyer, for men who thought they were gracefully making the rhythmic telemark turn had a sad awakening when the truthful film coldly disclosed their performance.

This incident illustrates how absurdly seriously the winter visitor takes his sport; but if only he would devote a little of this enthusiasm to his snapshots, what interesting pictures he could get. The Swiss do not agree with the frivolous and deprecating treatment of our craft shown by the general run of visitors, and when one of the hotel guests here, the Marquess of Angelsea, bought a camera in Davos, the enthusiastic photographer who sold it delivered a serious homily on its various movements that lasted so long that poor Lord Anglesea saw his train for Klosters gliding out of the station before it was finished. He was not even allowed a book of directions, but was told that only his own study and patience could teach him, and the only book required was one in which to make notes of every exposure. But can the seeker after effects in the snow mountains always register each exposure? We think not; for it is far from being such delightfully straightforward work. Only yesterday we were busy photographically on a steep snow slope, with nine decorated trees and peaks in the distance. The sun was shy but necessary for the effects. We waited, and were rewarded by a fleeting glimpse, during which four different views were made, each one requiring a slight variation of exposure. During those strenuous minutes note books were at a discount, and instinct, heavily leavened with experience, held sway. Moreover, we could not even remember the first two exposures when we sat down after the event to pay proper homage to the notebook.

The subject of payment for pictorial photographs which PHOTO-ERA MAGAZINE has been ventilating is one which every photographer who does at all serious work must find interesting, for however independent he may be financially of payment, the fact that his work has a market value is a tribute to his skill that he cannot fail to appreciate. Our idea has been to steer a middle course between the extremes of charging the same as some well-known draughtsman might do, or just covering the outlay of time and materials. We have had many opportunities of privately selling,

XUM

and it has always seemed to us a little suggestive of a pose to pretend, as some do, that only one print can be secured from a negative, just as it is absurd to charge nothing for the knowledge and trained skill that go to the production of the negative and the finished picture. Publicly destroying a negative so as to enhance the value of the one or two pictures made from it, is all very well from the dramatic point of view; but it does away with one of photography's great assets, *viz.*, easy duplication.

One of the most popular shows in London is now open at Olympia namely the Ideal Home exhibition. Judging by the crowds that visit it—the crush can only be compared to Wembley—the Ideal Home idea must appeal to every Briton.

Photography takes up quite a fair space. The Imperial Dry-Plate Co., Houghton's, Johnsons, Butchers, have very attractive stands, but Kodak excels and has captured the popular imagination with the representation of a real old English timbered cottage which suggests "ideal home" photography.

It is sound business to push photography at a popular show like this, for although the majority of visitors come to look at the new houses—there are two of the modern steel type—and what appertains to them, they are reminded what a big part photography can play in every day life.

Our Associate Editor Abroad

READERS of the Editorial and Groundglass pages may be interested to know that the regular writer thereof, Wilfred A. French, is again the victim of Wanderlust and, together with his better-half, may be found revisiting England and Scotland, but to be back at his desk about June 22, 1925. His itinerary, when he left New York, on the S.S. "Aurania," April 4, was as follows: Cobh (formerly Queenstown); Dublin; Liverpool; Glasgow; Edinburgh; Durham; Ripon; Wharfdale; York; Lincoln; Boston; Peterborough; Ely; Cambridge; London; Canterbury; Oxford; the Shakespeare country and neighboring points of interest; Devonshire, Cornwall, Wales, and, before ending at Liverpool, where he hopes to embark on the S.S. Carmania, for New York, Chester and Conway.

Mr. French, who has planned to see much in the short time he has allotted to his trip, hopes to be able to visit some of the camera clubs of Great Britain, also some of the exhibitions, including that of the International Circle of Pictorial Photographers, at Liverpool. Before leaving, he wrote all the material for his several departments, up to the July issue.

The Sender's Address Quickly Affixed

WHENEVER a photograph or a package from Dr. J. B. Pardoe reaches this office, it bears a small, red label, in form resembling a painter's palette, with the imprint in white letters—"Dr. Pardoe, Bound Brook, N.J." If a letter, it bears this (adhesive) label on the back.

As Dr. Pardoe sends away many photographs to friends, exhibitions and publications, he says that he finds these adhesive labels convenient substitutes for the written address, great time-savers, and that they are easily read.

We advise our readers who send out many photographic prints, to provide themselves with similar labels, a suitable quantity of which can be prepared by any dealer in adhesive labels, and at moderate cost.

Always Acceptable

AUTHOR: "The very first thing I sent to a magazine was accepted."

YOUNG FRIEND: "Was it poetry or prose?"

AUTHOR: "Prose. It was a cheque for a year's subscription."—Exchange.

COUNTRY HOME OF HARRIET BEECHER STOWE — WILFRED A. FRENCH

HERE, THERE AND EVERYWHERE

To ensure publication, announcements and reports should be sent in not later than the 5th of the preceding month.

Annual Exhibition of The Union Camera Club

THE Boston Young Men's Christian Union Camera Club, better known as the "Union Camera Club", opened its regular annual exhibition of members' prints in Union Hall, on Monday, April 6, and extended it over a period of six days. One hundred sixty-six prints by twenty-nine members were shown. An unstudied view of the show as a whole gave a very strong impression of the high average of excellence attained by all the exhibitors. In years past one was wont to observe the contrast in pictorial and technical qualities between the work of acknowledged leaders and workers of lesser abilities. In this year's exhibition no such marked differences were evident, signifying that this club's leaders are truly leading the newer and less experienced workers, not only to become expert technicians, but also to the appreciation of what is really sound pictorial work. The crude "photo-finisher" type of print was conspicuous by its absence, thereby raising the quality of the whole show. One missed the contributions of former exhibitors such as Selig, Hammond, Akasu and others. However, the new strength of the club has developed so rapidly, that there was no dearth of high class specimens of photographic art.

The prints were tastefully displayed under the management of the exhibition committee, composed of James M. Andrews, Raymond E. Hanson and Frank R. Fraprie. Each exhibitor's work was shown in a group. Work of marked excellence was noted in the exhibits of the following.

W. A. Barretto had two prints of widely differing themes. "The Trail of the Plow" showed a satisfying plowing group, with fine out-of-door atmosphere. "L'Apache" was a novel picture, done in dark blue, of a young man of the thug type. The face, in profile, cap and upper part of body was in strong artificial light relieved against a dark wall; the lower part darkened away to nothingness. The whole effect was that of a crook, awaiting the opportune moment to commit some dark deed; the face, with cigarette in mouth, being lifted up, as if expecting a signal. A very original and imaginative piece of work.

A. H. Blackinton's study of three elephant images was finely arranged, two white smaller ones forming a good foil for a large black head and fore-part of another. Mr. Blackinton's abilities as a news-photographer, were admirably demonstrated in his "Entering Port", a print of the steamship Majestic, being docked by a group of towboats. The technique was flawless in every respect.

J. B. Borges's "The 5.15" was a clever interpretation of a railroad train within a station, apparently having just arrived. The amount of shadow detail rendered and the handling of difficult highlights, together with good composition, made this conspicuous.

W. A. Bradford was represented by a strong group; two of which, "Sunset", a clouded sky over water, with brilliant lights, and "Solitude," a wood interior, were pre-eminent. The latter had a finer quality than most photographs of this type of subject, the fine technical attainment showing in the absence of solid shadows and "chalky" lights. One felt the charm of the spot, with its lovely pool in the foreground.

Ennis W. Clarke showed a panel picture of a white yacht on a lazy sea, with reflections of the "White Sail". A very correct rendering of tone.

Joseph Coburn Smith had two markedly strong pictures. One was a still-life study of a chessboard with the pieces in place, a strong light being thrown on two white knights, giving title to the picture; "The Crusade of The White Knights." The other print was "London Night", which was the cover picture of March PHOTO-ERA MAGAZINE and the reader is referred thereto.

Myron J. Cochran's "Turning the Sod" was another splendid plowing picture. His "Uncle Jim" was a refreshingly straightforward portrait of a sunny-faced old man, with a smile to make you love him at first sight. No frills or attempts at "effects"; just a good straight print, with splendid flesh-tones, and good arrangement and spacing. Another good print was "Winter", showing a snow-clad cottage at the end of a snowy roadway.

Raymond E. Hanson was on deck as usual, with a good group, "Winter Woods" showing a snow-scene in pine woods. The clever handling of spots of sunlit snow and deep evergreen trees showed the perfect control this craftsman has of his favorite medium, bromoil. "Night in Nantucket" is a departure from his usual subjects. A large square house at night, in dim outline, with light from the interior coming through the windows. This was in dark blue bromoil with yellow highlights. Mr. Hanson even got in some stars (by hand).

Franklin I. Jordan had two good prints "Wolf" a police-dog in alert pose and "Invocation" a classical genre of a draped figure on marble steps with hands raised toward heaven. A foliage background gave ample relief to the figure.

Ralph Osborne's "Sunny Monday" was a fine interpretation of sunshine patterns on white clothes on wash day, just over the fence. The nearby tree formed a dark foil and the sun-spots on the road were well controlled, giving balance to the "washing" on the line. Mr. Osborne also showed a portrait of the president of the club, W. H. C. Pillsbury which was admired. It is rather serious for the genial president, and the lower face appears rather dark and prominent, to the present writer.

W. H. C. Pillsbury in "Old Pewter and Fruit", a fine still-life composition, showed one of the best tonal and texture-quality prints in the exhibition. Beautifully composed and lighted and rendered with great skill, it is indeed a gem. "Sammy" a profile portrait of a dog was another hard subject well handled.

A. C. Sherman, Jr. had two interesting prints. "Il Trovatore", showing a little statue of a troubadour on a stone wall overlooking a garden. This was very comical. "Hall of The Mountain King" a representation of what appeared to be the interior of a cave with columns of rock formation. The truth is that it was the under side of a fountain on Boston Common, in winter, sheathed in ice and icicles reaching the icy

XUM

ground. It was exceedingly novel and clever, and in perfect tone-value.

R. G. Spencer had a pleasing picture of a foreign village; well composed and of good quality. "Nannette", a striking figure of a dog against the sky, reminded one of a gargoyle on a parapet.

Herbert W. Turner, who never fails to show some good stuff, showed a fine "Winter Brook" with snow-bound banks and meadow for a setting. The contrast of light and shade was fine and joined with this artist's well-known composing talent, made a strong appeal.

O. A. Ostby had one of the best in "Water Lilies", a selection from a pond of these choice flowers, in a fine composition.

E. N. Smith, a son of the late Henry S. Smith, who perfected the widely known soft-focus lens, showed several large portrait heads, in soft focus. One of them, "The First Mate" being a fine character study of a naval petty officer, with cap on, and smoking a pipe; the inscrutable expression of the face giving rise to speculation.

A part of the exhibition was a display of 48 Autochrome and Paget color-plates, in 3¼ x 4¼ and 5 x 7 size. They were well displayed in an eight-sided light-box about three feet in height illuminated from within by powerful electric bulbs. They were the work of James M. Andrews, W. J. Jaycock, A. H. Blackinton and Franklin I. Jordan, who are very expert in color-photography. All were beautiful examples of this process and the exhibit was in fine contrast to the monochrome prints.

In conjunction with the club's exhibition, Frank R. Fraprie, editor of *American Photography*, displayed 110 prize-winning prints from the fifth annual international competition held by his magazine. Being contributed by foremost workers in America and abroad, they formed a show well worth long study and unstinted admiration. They were truly "créme de la créme". Lack of space prohibits individual mention.

E. H. Washburn.

"The Book of Photo-Supplies"

Under this title W. Butcher & Sons, Ltd., Camera House, Farringdon Avenue, London, E.C. 4, England have issued a remarkably interesting combined instruction-book and catalog. We have examined it with pleasure and urge our readers to send for a copy without delay.

"The Scottish Federation Blue Book

Again we are glad to welcome the helpful and interesting Scottish Photographic Federation Blue Book. It possesses a wealth of photographic information and is virtually indispensable to the camerist who visits Scotland. The price is threepence and copies may be obtained from John Macdonald, 27 Aberfeldy Street, Dennistown, Glasgow, Scotland.

Royal Photographic Society Exhibition

Editor Photo-Era Magazine:

I beg to inform you that the 70th Annual Exhibition of this Society will be held from Monday, September 14 to Saturday, October 24, 1925. The last day for receiving entries is Friday, August 14.

The Exhibition will be divided into three Sections: Section I. Pictorial Prints. Section II. (*A*) Pictorial Lantern Slides; (*B*) Pictorial Color Transparencies and Prints. Section III. (*A*) Natural History Photography; (*B*) Photomicrographs; (*C*) Radiographs; (*D*) Astronomical and Spectrum Photographs; (*E*) Stereoscopic Photography; (*F*) Scientific Color Work; (*G*) Technical Applications of Photography, including Survey and Record Work, Press and Theatrical Photography, Telephotography, Aërial, Meteorological, Metallurgical and Geological Photography, Photography by Electric Transmission, etc.; (*H*) Kinematography.

There is no limit to the number of entries in any Section, but in Section 1, Pictorial Prints, it is improbable that more than two prints by any exhibitor will be hung. No entry-fee is charged in any Section.

Under separate cover I have had pleasure in sending you a supply of the Entry-Form and Prospectus and shall greatly appreciate your kind assistance in making the forms available to your readers.

Yours faithfully,

H. H. Blacklock, *Secretary.*

A Cordial Invitation from Camera Club, London

It is with pleasure that we give to our readers the letter which we received recently from The Camera Club, 17 John Street, Adelphi, W.C. 2., London, England. It speaks for itself and serves to unite more closely the friendly ties which bind the two great English-speaking nations of the world.

Editor Photo-Era Magazine:

I am instructed by my Committee to invite the attention of your readers to the facilities afforded by *The Camera Club, London,* to gentlemen, interested in photography, who are visiting London.

The Club is centrally situated and provides all needful appliances for the practice of photography, in addition to the amenities of a social club.

On the usual introduction, gentlemen visiting England, are elected Temporary Members for a period of 3 months on payment of one Guinea.

Yours obediently,

H. Philp, *Secretary.*

March 24, 1925.

Brooklyn Institute Notes

Beginning March 16 there was hung at the Brooklyn Institute an exhibition of the work of the Pittsburgh Salon Group, which reflected the character of that group.

O. C. Reiter was represented by prints of diverse subject and treatment, including several of his characteristic prints of Pittsburgh's industrial phases.

David and Eleanor Craig showed an interesting still life with sunlight streaked across a table.

J. Will Kellner sent "The White Kerchief" a character study of an old woman. Probably the best of the show.

N. S. Wooldridge showed a group of landscapes filled with soft atmosphere, printed on blue and green carbon.

W. C. and T. M. Jarrett had a group of charming child-studies and two landscapes, one a snowstorm, the other a lakeside bathed in sunlight.

B. H. Chatto sent two excellent carbon prints, "Fairyland", a river overhung by trees and one unnamed scene of a farmhouse with heavy lowering clouds done in dark blue.

P. F. Squier was represented by several large bromides among them "A Sombre Winter's Day", a snow-

scene, and "Finding Treasure in the Old Barn", showing two children in the sunlit doorway of a barn.

W. W. Zeig had two large bromoils "Drizzly Morning, North River" inked in green and "Fish House, East Gloucester" in warm tones with nice water-reflections.

The classes are concentrating their efforts on preparing prints for their annual exhibitions. Mr. Zerbe's classes will show their work the week beginning April 20 and Miss Lauffer's class will exhibit theirs beginning April 27.

The annual exhibition of the Department will be held the week of May 11, with the formal opening on that night.

MYERS P. JONES.

Exhibition of Chicago Camera Club

THE Annual Exhibition of Pictorial Photography held at the Art Institute of Chicago under the auspices of the Chicago Camera Club had for its jury of selection Edgar S. Cameron, Marshall D. Smith and George Alexander. The print director was F. M. Tuckerman. Among those who exhibited prints were W. A. Ball, C. Curry Bohm, A. R. Born, Ralph J. Fallert, R. L. Farrington, E. E. Gray, George Henry High, W. D. Hughes, Lee Miller-Jones, K. A. Kjeldsen, Wm. E. Lamb, L. B. Mayo, A. W. Moline, O. W. Olson, Harry C. Phibbs, George C. Poundstone, Frank Rich, J. A. Rogers, John Julius Ryan, Gilbert B. Seehausen, George Sohn, P. T. Tarnoski, R. W. Trowbridge, Ralph R. Weddell, Edward F. Weis, Leonard Westphalen and Paul Wierum.

International Congress of Photography

AFTER a lapse of fifteen years an International Congress of Photography is to be held this year, June 29 to July 4, 1925, in Paris. The last congress was held in Brussels in 1910, where a very successful meeting was held attended largely by representatives from all nations.

The Congress will be divided into four sections: (1) Scientific; (2) Technical and artistic; (3) Historical and documentary; (4) Technique of kinematography —in connection with the Congress of Kinematography. An historical exhibition of photography and a centenary celebration of the beginning of photography will be held during the Congress.

At the request of the International Committee of the Congress, an Organising Committee in the United States has been formed, the members being: Mr. F. F. Renwick, Dr. W. D. Bancroft, Mr. W. H. Manahan, Mr. E. J. Wall, Dr. H. E. Ives, Professor R. W. Wood, and Dr. C. E. K. Mees, chairman. A list of American patrons has also been drawn up; their names are given on the attached list.

The Congress is especially eager to obtain papers relating to the branches of photography with which it deals from workers in the United States. Offers of such papers can be communicated to me, and I will forward them to the secretary of the Congress or they can be sent direct to M. G. Labussiere, 5 rue Brown-Sequard, Paris, XV. The secretary is eager to know at once what contributions will be available, though it is not necessary that the whole paper should be sent to him. The title and a brief abstract should, however, be forwarded at once.

C. E. K. MEES,
Eastman Kodak Company,
Rochester, N.Y.

APRIL 14, 1925.

Committee of Patronage
International Congress of Photography

CHARLES L. ABEL, Editor, *Abel's Photographic Weekly*, 515 Caxton Bldg., Cleveland, Ohio.
W. P. ALLEN, E. I. duPont de Nemours & Company, Wilmington, Del.
A. H. BEARDSLEY, Editor, *Photo-Era Magazine*, Wolfeboro, N.H.
SIGISMUND BLUMANN, Editor, *Camera Craft*, Claus Spreckles Bldg., San Francisco, Calif.
FRANK CHAMBERS, Editor, *The Camera*, 636 Franklin Square, Philadelphia, Pa.
FRANK SCOTT CLARK, 5108 Cass Ave., Detroit, Mich.
EMIL CRAMER, President, Cramer Dry Plate Company, St. Louis, Mo.
GEORGE EASTMAN, Eastman Kodak Company, Rochester, N.Y.
RUDOLPH EICKEMEYER, 157 Alta Avenue, Park Hill, Yonkers, N.Y.
F. ROY FRAPRIE, Editor, *American Photography*, 428 Newbury St., Boston, Mass.
PAUL FULLER, Pathé Exchange, Inc., 2 Rector St., New York City.
J. H. GARO, 739 Boylston St., Boston, Mass.
ELIAS GOLDENSKY, 1705 Chestnut St., Philadelphia, Pa.
GEORGE W. HARRIS, 1311 F St., N.W., Washington, D.C.
CLARENCE M. HAYES, 54 Adams Ave. W., Detroit, Mich.
WILL HAYS, Motion-Picture Producers & Distributors of America, 469 Fifth Ave., New York City.
DUDLEY HOYT, 714 Fifth Ave., New York City.
F. E. IVES, Color Photography Expert, 1808 N. Park St., Philadelphia, Pa.
LEWIS B. JONES, Vice-President, Eastman Kodak Company, Rochester, N.Y.
JESSE LASKY, Motion Picture Producer, 485 Fifth Ave., New York City.
C. L. LEWIS, Collingwood Ave., Monroe St., Toledo, Ohio.
FRANK W. LOVEJOY, Manager, Eastman Kodak Company, Rochester, N.Y.
PIRIE MACDONALD, 526 Fifth Ave., New York City.
E. MALLINCKRODT, Jr., Advanced Amateur, Mallinckrodt Chemical Company, St. Louis, Mo.
*W. H. MANAHAN, Hillsboro, N.H.
RYLAND PHILLIPS, 1507 Walnut St., Philadelphia, Pa.
Dr. SAMUEL E. SHEPPARD, Research Laboratory, Eastman Kodak Company, Rochester, N.Y.
*Mr. F. F. RENWICK, Parlin, N.J.
*Mr. E. J. WALL, 38 Bromfield St., Wollaston, Mass.
*Dr. H. E. IVES, Western Electric Company, West St., New York City.
WILLIAM G. STUBER, Vice-President, Eastman Kodak Company, Rochester, N.Y.
JOHN TENNANT, Editor, *Photo Miniature*, 103 Park Avenue, New York City.
CLARENCE WHITE, 46 W. 144th St., New York City.
ADOLF ZUKOR, Motion Picture Producer, 485 Fifth Ave., New York City.
*Prof. R. W. WOOD, Johns Hopkins University, Baltimore, Md.
*Dr. W. D. BANCROFT, Cornell University, Ithaca, N.Y.
ELMER PEARSON, Pathé Exchange, Inc., 35 W 45th St., New York City.
JULES BRULATOUR, 1542 Broadway, New York City.
Mr. J. H. HASTE, Manager, Kodak Park Works, Rochester, N.Y.

*Members of Organizing Committee.

XUM

THE PUBLISHER'S CORNER

When It's Forty Below in Maine

Our good friend William H. Blacar of Bangor, Maine, sent us a little reminder of winter days "down East" which we believe our readers will appreciate. Those who have had no experience with snow and ice

40 DEGREES BELOW W. H. BLACAR

or forty degrees below zero will probably wonder that any of us continue to live in such a cold country. However, it is not so bad, after all. In sending the print Mr. Blacar wrote, "I enclose a New England picture for your edification and education;" and we hope that our readers will be duly informed with regard to what forty below zero may necessitate, at times.

"It Does Beat All!"

During the past few months I have been very much interested in the comments which have come to me, verbally and in letters, with regard to the contents of Photo-Era Magazine. All communications have been constructive and very helpful. Not one received thus far has been other than kindly and encouraging. My purpose in writing this paragraph was not to place the emphasis on the compliments received but rather on the subjects which appealed to my correspondents and caused them to write. An editor or a publisher should ever keep attuned to the things which interest, serve and stimulate his readers. By noticing their reactions and comments he is enabled to aim nearer the mark and to serve them to better advantage. That is exactly what I have been trying to do; but I admit frankly that "it does beat all" the subjects that readers like better than others. For example, one subscriber writes that the best thing in the April issue was an editorial reference to the value of the Citizens Military Training Camps and the airplane photographs by Lieut. A. W. Stevens. Another thought that the eclipse pictures were worth the price of the magazine. Still a third was glad that our stereo-department was holding its own and getting support. A fourth stated that the leading feature of every issue for him, was "The London Letter" conducted by the Cadbys'. I could mention a number of others. The interesting thing to me is that these writers say nothing about the rest of the magazine. Apparently they are pleased with their particular part of it and that is enough. Now, as a matter of fact, the April number was edited and arranged under very trying conditions. It was not just what I hoped that it would be; yet, this number seemed to cause many to write me. Often, the very issue that we have worked the hardest to produce never draws much comment; but an issue that we feel is not just as we want it, typographically and editorially, seems to start a flood of interesting and helpful correspondence. Yes, "it does beat all!"

If You Could See What I See

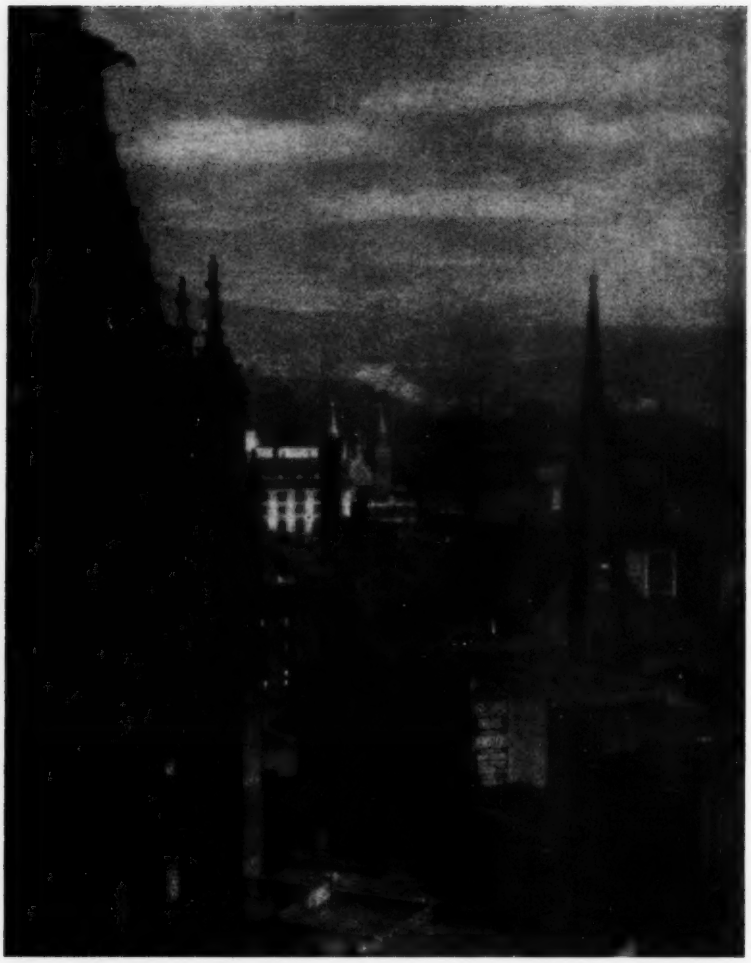
As I write these lines and look out over the waters of beautiful Lake Winnepesaukee, to the islands and on to the Belknap Mountains, far across the lake, while lake, islands and mountains seem to dance in the spring sunshine, I wonder how many of my readers would not be glad to leave the noise, dust, crowds and pavements of the city and join me for a quiet hour. Perhaps some might say that beautiful scenery and the song of bluebirds adds no dollars to one's income; but I venture to say that fewer dollars and more quiet enjoyment of nature will make up the difference in health and true happiness. I know the city, having lived there nearly all my life. I admit its attractions and benefits; but if the reader could see what I see this very moment, he would understand what the psalmist meant when he sang of the hills from which came his strength.

In the June and July Numbers

Although, as a rule, I believe in letting each issue of Photo-Era Magazine stand or fall by itself without much heralding, yet, in the forthcoming June and July numbers there will be some features not found elsewhere. Among these may be mentioned an illustrated review of The Twelfth Pittsburgh Salon by Sophie L. Lauffer and an account of the exceptional school of photography conducted by the U. S. Army at Chanute Field, Illinois. There will be others; and these will be good, too. Of particular interest will be the many practical, interesting and stimulating items which will be found under "The Amateur Kinematographer", "The Stereophotographer", "The Military Photographer" and "Here, There and Everywhere". Illustrated feature-articles have their place and so have the little items of news, comment, technical tips and letters. In short, read Photo-Era Magazine from cover to cover—you'll find something helpful and worth the effort.

Frankly, in making up this issue I came to the end of my available space with enough material left over for another number. There wasn't time to re-arrange things, so that several departments are again omitted. They'll be in the June and July issues.

XUM



FROM A PITTSBURGH OFFICE WINDOW
CHARLES K. ARCHER
TWELFTH ANNUAL PITTSBURGH SALON